TECHNICAL BOOK REVIEW INDEX

Published monthly, except July and August, by Special Libraries Association, 4400 Forbes Street, Pittsburgh, Pa. Price $7.50 a year, overseas, $8. Entered as second-class matter at the Post Office, at Pittsburgh, Pa., under the Act of March 3, 1879. **Copyright, 1940, by Special Libraries Association.**

JOHN F. HARRIGAN, *Editor*

Volume 8 **May, 1942** **No. 5**

THE purpose of the Technical Book Review Index is primarily to identify reviews in current scientific, technical, and trade journals; secondarily, when feasible, to quote from these reviews. In the evaluation of scientific and technical books, reviews constitute the best existing source of information. The service of the Technical Book Review Index is thus in the field of evaluation, rather than in competition with existing publications which announce new and forthcoming books, list books by subjects, or supply bibliographic information. Each quotation immediately follows the name of the journal from which it is taken. Obviously, these brief extracts, detached from the context, must not be accepted as conclusive. Except for the correction of obvious errors, the bibliographic information is as given in the reviews. It is, therefore, in many cases incomplete and in some cases probably inaccurate.

Allen, C. B. The wonder book of the air. 340p. 1941. Winston, Philadelphia, $2.50.

Journal of the aeronautical sciences, aeronautical review edition, March 1942, p.51. ⅛ col.

"Written in a style that can be easily enjoyed by adolescents but providing an equal fund of knowledge for adults is this story of the development of aviation . . . Sections are devoted to the tracing of airline flights, the history of aviation, exploits of noted flyers, soaring and gliding, aircraft radio, and the airplane for both peacetime and military operation. A chronology of aeronautical events appended . . . provides a quick and handy reference."

American Association for the Advancement of Science. Liebig and after Liebig; a century of progress in agricultural chemistry. The Association, Philadelphia, (Members, $2). (Publication no. 16.)

A.A.A.S. bulletin, March 1942, p.8. 1½ col.

"A symposium of papers presented before the Sections of Chemistry and Agriculture of the American Association for the Advancement of Science at Philadelphia on December 30, 1940, in commemoration of the hundredth anniversary of the publication of Liebig's Organic Chemistry in Its Applications to Agriculture and Physiology . . . 'It deals with a subject of great importance and of wide general interest; it is authoritative, comprehensive and thoroughly documented; and it makes available in convenient form the history of one of the most significant developments in agricultural science . . . A coordinated survey of a subject of deep theoretical interest and equally great practical importance . . . Not only reviews an extensive literature, but describes current opinions and practices and new methods of investigation that are now being developed . . . F. R. Moulton'."

American Foundrymen's Association. [Graphite classification chart.] The Association, Chicago, $2 (Members, $1).

Foundry, April 1942, p.150. ⅝ col.

"A wall size chart of the A.F.A.-A.S.T.M. Graphite Flake Classification in Gray Cast Iron . . . Contains not only reproductions of typical fields showing the 8 graphite flake sizes contained in the practice, but also the 5 types of graphite. In addition it contains directions for the selection of specimens, polishing, preliminary examination, estimation of flake size, use of calibrated oculars in determining flake size, and proper method of recording gray iron graphite structure data. The information presented in the chart is from a tentative recommended practice for evaluating the microstructure of graphite in cast iron, which was adopted as tentative at the 1941 annual meeting of the A.S.T.M. with the designation A247-41T. It is pointed out that the present tentative recommended practice is not to be considered a specification."

American Foundrymen's Association—Industrial hygiene codes committee. Code of recommended practices for the protection of life, property and production in the foundry industry during war. The Association, Chicago.

Foundry, April 1942, p.200. ⅝ col.

"In preparing these rules the committee has kept in mind the effectiveness of the recommendation; the minimum cost to accomplish the desired results and the minimum time required to prepare for the protection and defense of the property."

American Steel & Wire Company. Manual of spring engineering. 132p. The Company, Rockefeller Bldg., Cleveland, gratis.

Steel, April 6, 1942, p.116. ⅛ col.

"All types of springs are covered . . . Describes spring materials, fatigue characteristics, temperature effects, static and dynamic loads, tolerances, deflections, stresses, working space, design factors and other subjects. Copies may be obtained by application on a business letterhead to the sales promotion department."

Atkins, E. Arthur. Practical sheet and plate metal work. Ed.5. 606p. Pitman, London, 8s. 6d. net.

Iron and steel, March 1942, p.211. ¾ col.

"This . . . is to some extent a reprint, since the first thirty-four chapters have not been altered in any way . . . Most of the remaining twelve chapters have been revised . . . particularly those dealing with sheet metal joints, annealing, welding, metal testing and properties. In view of the general high standard of the book, it is a great pity that the proof reading and the insertion of the new matter have been done in such a careless manner . . . Well produced on good paper and represents good value for the (nowadays) low price charged. The prospective

sheet metal worker would be well advised to study this book, which is illustrated with a large number of drawings and photographs."

Ayres, W. L. See **Wilder,** R. L., & **Ayres,** W. L., ed.

Bastyr, W., & **Paszkowski,** E., comp. Anglo-Polish translation of workshop terms. 1941. Association of Polish Engineers in Great Britain, 3s.

Journal of the Royal Aeronautical Society, Feb. 1942, p.58. 8 l.

"This small book, intended primarily for Polish workmen in English factories, will avert many time-wasting misunderstandings, as each of the variety of tools listed under 34 headings is identified by a very clear diagram . . . English apprentice mechanics and technical translators will also find it useful. We are not in a position to vouch for the accuracy of the Polish, but the fact that there are only three minor printing errors in the English equivalents suggests that the book has been compiled with considerable care."

Begeman, Myron L. Manufacturing processes. 579p. 1942. Wiley, New York, $4.50.

Factory management and maintenance, April 1942, p.144. 11 l.

"Written primarily for engineering students, can be used as textbook for courses without laboratory work or for industrial short courses. First part is devoted to foundry practice, pattern work, metal casting, plastic molding, heat-treating, and welding. Second half discusses production machines, accessories, cutting tools, and measuring instruments."

Professional engineer, March 1942, p.47. ⅛ col.

"Includes the technical fundamentals of important manufacturing processes, engineering materials, and modern equipment necessary for processing these materials . . . Contains a wealth of information and while primarily intended for engineering students it should prove useful to practising engineers, machine shop superintendents and others. Illustrations and line diagrams are excellent and cover the most modern machines and processes. An exceptionally well written book."

Bethel, Lawrence L., and others. Production control. 276p. McGraw, New York, $2.75.

American machinist, March 19, 1942, p.266. ⅛ col.

"Four diverse viewpoints which represent a survey by the authors of Connecticut industries. In gathering material, they visited 60 representative companies and conducted group conferences attended by representatives from 185 companies. The presentation is based on statement of basic principles of production control illustrated by case histories and accompanied by case problems. A few of the topics dealt with are production forecasting, budgeting, planning, procurement of materials, scheduling, quality control, records and follow-up. While the book is designed primarily for the use of classes in the management defense training program, it should be equally useful to those production men whose responsibility it is to see that schedules are met."

Factory management and maintenance, April 1942, p.144. 10 l.

"A Teacher's Manual containing teaching commentaries on cases presented in the book also is obtainable (10 cents)."

Blatt, A. H. See **Organic** syntheses.

Bristowe, William Syer. The comity of spiders. v.2. 229-560p. 1941. Quaritch, London, 25s. net. (Ray Society volume for the year 1940.)

Nature, March 7, 1942, p.258. 1⅞ col.

"Although Dr. Bristowe writes in his preface that the War has affected his work on spiders and even his enthusiasm it is difficult for the reader to detect many signs of this in the volume which concludes the work first published in 1939. The subjects with which he is now concerned are food and its capture, danger and its avoidance, courtship and mating. On these matters he gives us a summary of his own investigations . . . supplemented by some contributions from the work of other araneologists . . . Illustrated chiefly by clear line diagrams with a few photographic plates, which, it must be confessed, demonstrate the marked superiority of line over photography where spiders are concerned. A word of praise should be given to . . . the industry which has compiled the very useful index of every specific name used in British spider literature . . . Taken together, Dr. Bristowe's two volumes constitute a notable piece of work and one which should facilitate and encourage the study of British spiders." *T. H. Savory.*

Brooks, Charles F., and others. Eclipse meteorology with special reference to the total solar eclipse of August 31, 1932. 109p. Blue Hill Meteorological Observatory, Harvard Univ., Cambridge, Mass., $1.25. (Harvard meteorological studies, no.5.)

Science news letter, March 14, 1942, p.176. 8 l.

"This study, the most detailed ever made on eclipse weather, will be of great interest not only to meteorologists and astronomers but to physical scientists generally."

Brown, Francis William. Chemical problems and their solutions. 107p. 1941. Industrial Consultants, Philadelphia, $1.50.

Journal of the Franklin Institute, March 1942, p.293. ⅛ p. including another review.

"The subjects are broken down into small divisions and each is given a short statement as to its character or use, or both . . . After treating on elementary mathematics, [it] gives both chemical and physical type of problems. These problems are arranged after the short statement concerning the topic, as illustrative of the statement. The problems are worked out and the answers arrived at." *R. H. Oppermann.*

Brown, Francis William. Industrial and engineering chemical technology. 102p. 1941. Industrial Consultants, Philadelphia, $1.50.

Journal of the Franklin Institute, March 1942, p.293. ⅛ p. including another review.

"The subjects are broken down into small divisions and each is given a short statement as to its character or use, or both . . . Covers metals, alloys, corrosion problems, mineral acids, alkalies, carbon, sulphur, gases, liquids, solutions, etc., etc." *R. H. Oppermann.*

Buckingham, Earle. Production engineering. 268p. 1942. Wiley, New York, $2.50.

Factory management and maintenance, April 1942, p.144. 7 l.

"Written to point out the relationship between technical problems related to the product manufacturing processes and the plant, and to emphasize the importance of cooperation in all the activities involved. In three sections: Preparation for Production; Production Operation and Control; Supporting Activities."

Mechanical engineering, May 1942, p.401. 1⅛ col.

"In his preface, Professor Buckingham indicates that his purpose is to prepare an 'assembly drawing' of the subject of production engineering and thus to portray to those who have studied the disjointed elemental subjects of production engineering how these elements go together and what holds them together. It must be said that the author has completed his task quite as announced, and with the skill of the artist assembling a mosaic. Professor Buckingham writes with a forcefulness and confidence well warranted by his precision of argument. He has scorned the use of pictures, figures, or charts, and this to the bitter end, for the book contains not a single one. Yet there can be no criticism for lack of lucidity . . . This book must be

characterized as an outstanding addition to the material available for the advanced student of Production Engineering. More than this, it can be a refreshing fountain to the practicing engineer who may have advanced on but one front of the entire field. It derives this characteristic from its exemplary clarity of expression quite as fully as from its technical excellence." *J. M. Juran.*

Professional engineer, March 1942, p.47. ⅛ col.

"A clear-cut connected treatment of an important subject. An astonishing amount of ground is covered in a concise and lucid manner, it is a classic in its field . . . Fills a definite need at the moment, it is an important addition to contemporary literature on the subject."

Butler, Ovid, ed. American conservation in picture and story. Fourth printing, revised. 160p. 1941. American Forestry Assoc., Washington, D. C., $2.50.

Journal of forestry, March 1942, p.274. 1 col.

"First published in 1935 as an anniversary number of *American Forests* magazine, the material that comprises this book has been revised and brought up to date so that it comprises an authentic and comprehensive history of the conservation movement in the United States from its inception. Attractively printed, well written, and beautifully illustrated, it is at once interesting to read and valuable as a reference of conservation facts and dates . . . For the present reviewer the most engaging characteristic . . . is the clearness and simplicity with which it is organized and written . . . Foresters as a group, on the evidence of publishers, buy comparatively few books. It is recommended that they buy this one. It is truly a splendid contribution to contemporary forestry literature." *Henry Clepper.*

Cherry, Raymond. General plastics. 128p. 1941. McKnight, Bloomington, Ill., $1.20.

Modern plastics, March 1942, p.80. 8 l.

"The adventurer who has an urge to do his own fabricating with plastics will find ample directions for such craft work in this book. The tools and supplies needed and the fundamental operations involved in fashioning plastics are described in detail. The layouts and step-by-step procedures for forty-two projects are given. An introductory section serves to acquaint the beginner with the terminology and classification of plastic materials." *G. M. K.*

Cleeton, Glen U., & **Pitkin,** C. W. General printing. 168p. McKnight, Bloomington, Ill., $1.60.

Inland printer, March 1942, p.36. ⅜ col.

"A valuable work for beginners and advanced students in printing. Starting with 'Why Study Printing?' the book gives a description of the three basic methods of printing, with a comparison of relief, offset, and gravure, and then goes into the point system, the parts of a piece of type, how to measure type, and so on, including locking up for press, the fundamentals of presswork, and various other phases of the work with which the student must become familiar. Also included is historical material covering the evolution of printing, the genesis and development of type faces, and so on. An excellent feature . . . consists of the unusual number of illustrations that have been included, especially the attention that has been given to providing photographic reproductions showing so many of the details of different operations. In fact, it presents one of the best collections of such illustrations we have seen in some time."

Colvin, Fred H. Aircraft handbook. Ed. 5. 784p. McGraw, New York, $5.

American machinist, March 19, 1942, p.265. ⅛ col.

"The current edition follows the technique used previously in taking up successively various aircraft elements, beginning with the engine. In fact, a good 50 percent of the book is devoted to this most important unit in aircraft. Following the discussion of engines, which includes component parts such as carburetors, magnetos and starters, the volume describes other major aircraft units such as propellers, landing gear and instruments. A chapter is devoted to S.A.E. aircraft standards."

Colvin, Fred H. Gages and their use in inspection. 157p. 1942. McGraw, New York, $1.50.

American machinist, March 19, 1942, p.268. ⅜ col.

"Discusses gages from their simplest to their most complicated forms . . . Describes the plug gages, calipers, micrometers and feeler gages used in every shop, to the newer automatic gages depending on electricity or air for their 'touch.' In addition the volume gives some helpful data on the maintenance of gages."

Steel, March 16, 1942, p.111. ½ col.

"This volume is not a treatise on gage making but simply points out why gages are made, how they are constructed and used and makes clear many of the terms and questions that may cause confusion and misunderstanding . . . Numerous illustrations portray various gages and their use. Diagrams and tabular matter illustrate accuracy required in engine lathes. A chapter is included on salvaging and selective assembly, by which parts not passing gage tests yet may be rendered usable at less cost than replacement."

Welding engineer, April 1942, p.50. ½ col.

"A valuable book . . . Profusely illustrated and contains many tables which will prove helpful on inspection jobs."

Cook, Hartley Kemball. The birth of flight; an anthology. 204p. 1941. Allen & Unwin, London, 7s. 6d. net.

Nature, Feb. 28, 1942, p.231. ⅛ col.

"A pleasant corrective to the present attitude towards flying. It begins with the mythology and ends with the accomplishment of flight. Much is from contemporary records." *J. L. Pritchard.*

Cooke, Nelson M. Mathematics for electricians and radiomen. 604p. 1942. McGraw, New York, $4.50.

Electronics, April 1942, p.70. ½ col.

"Suitable for self-instruction by students who have had some training in high school mathematics. With the greatly increased need for technical radio men caused by the war program, many men will find it highly desirable to increase their knowledge of mathematics for a better understanding of circuits. It is this type of man, with limited formal training, who will find this book very useful." *C. W.*

QST, April 1942, p.56. ½ col.

"A text written especially for technicians in the electrical and radio fields, utterly practical in viewpoint, and tying mathematics intimately to the everyday electrical problems which that science can be called upon to solve. One has only to glance through the pages to realize that such a book has been needed for a long time, and further inspection shows that it appears to meet that need in very comprehensive style . . . A very important feature . . . is the large number of problems for the student to work out; answers are given separately . . . Knowledge of arithmetical operations is the only prerequisite for study of the text . . . The result of many years experience in teaching the subject. The presentation is such that difficulties in home study should be negligible." *G. G.*

Copper and Brass Research Association. How small industries can go after war work. 15p. The Association, 420 Lexington Ave., New York, gratis.

Heating, piping & air conditioning, March 1942, p.138. ½ col.

"Purpose . . . is to show small companies how to go after contracts or subcontracts through the contract distribution branch, production division, War Production Board, Washington, D. C., or through its regional offices in many cities in each state . . . Contains information on how industry can secure loans for equipment to make

war armament, how small companies can form pools to obtain contracts, and other helpful data. A list of regional offices and addresses, the names of officers and telephone numbers are included."
Modern machine shop, April 1942, p.343. ⅛ col.
Professional engineer, March 1942, p.53. ⅛ col.

Courant, Richard. What is mathematics? An elementary approach to ideas and methods. 521p. 1941. Oxford, New York.
School science and mathematics, March 1942, p.302. ⅓ p.
"Written for a text or reference book for the many college courses which aim to present a picture of mathematics as a whole rather than stressing some particular field. While the only prerequisite would be a good high school foundation in mathematics, the book by no means attempts to make a sugar coated pill out of mathematics. An attempt is made to proceed from the simplest elements toward a grasp of the problems of advanced mathematics. A considerable body of material is so indicated that it can be omitted without destroying continuity; in fact much of this would necessarily have to be omitted by those with weak previous preparation . . . The supply of problems, particularly numerical examples, is very small . . . Very definitely this book should be in the library of every high school and college and also in the library of every mathematics teacher. It is not a collection of recreations, puzzles, or oddities—rather it is a serious book that will require intensive study in spots." *Cecil B. Read.*

Crivelli, Albert F. Shipfitters' manual. 145p. 1941. Pitman, New York, $1.50.
Marine engineering and shipping review, March 1942, p.150. ⅛ col.
"Provides the groundwork upon which a student may build for himself a complete and thorough knowledge of shipfitting by practical application of its contents, which include shipbuilding terms, materials and structural members, mold lift [sic] work, ship layout, general phases of shipfitting, structural shop personnel, hull structural plan reading, and electric arc welding."

Crook, W. E. Direction-finding handbook for wireless operators. 1942. Pitman, London, 3s. 6d.
Journal of the Royal Aeronautical Society, March 1942, p.86. ⅓ p.
"In his succinct and practical style he first deals with the subject in general, and then with its main applications: the Rotating Frame and the Bellini-Tosi systems. His aim, as he says in the preface, is not to describe the working of any particular set, which will inevitably become obsolete, but to give his readers a grasp of general principles which they themselves can apply to the apparatus they have to operate. A very useful chapter deals with Sensing and Fixing . . . and all sources of error are dealt with exhaustively. The level of technical knowledge assumed in the reader is somewhat higher than in the preceding manuals, but should present no difficulties to those who have read them."

Darlington, George M. Office management. Revised edition. 267p. Ronald, New York, $2.50.
Journal of business education, March 1942, p.50. ⅛ col.
"Emphasis on a short but basic presentation has been retained . . . While the basic principles of good office management have not changed, many improvements in practice have been made since the first edition of this text was printed. Improvements in office furnishings and equipment, lighting, office communications, air conditioning, and the handling of personnel problems—all this progress has modified practice and has necessitated important revisions in content. One of the fine features . . . is the inclusion of a large section in each chapter devoted to questions and problems. These too have been improved."

Davis, Evelyn K. The volunteer in public health nursing. 48p. 1941. National Organization for Public Health Nursing, New York, 50c.
American journal of public health, March 1942, p.326. 1 col.
"Should be on the desk of every director of a nursing agency and available to her staff members as well as to her board members and volunteers . . . With great clarity explains why a nursing organization should use the volunteer, and where she can be made useful . . . A very explicit schedule of actual work in clinics, motor corps, etc., has been worked out, and directions for selection, training, and placement of volunteers will serve as a guide in the use of a layman for any size organization . . . Full of suggestions." *Priscilla K. Thaxter.*

Davis, Raymond E. Elementary plane surveying. Ed.2, revised and rewritten. 334p. McGraw, New York, $3.
Engineering news-record, March 26, 1942, p.79. ⅔ col. including other reviews.
"New material on surveying instruments, on measurement of areas, on operations connected with construction, and on photogrammetric surveying has been added."
Professional engineer, March 1942, p.51. 9 l.
"The author has done a fine job in presenting his material, nothing seems to have been overlooked, even Photogrammetric surveying is treated briefly. A really good book on the subject."

Debenham, Frank. Astrographics; or, First steps in navigation by the stars; a primer for the airman cadet. 1942. Heffer, Cambridge, England, 7s. 6d.
Journal of the Royal Aeronautical Society, March 1942, p.86. ½ p.
"When a book on a subject as reputedly abstruse as Astro-Navigation begins with a quotation from 'The Hunting of the Snark' . . . the reader is entitled to expect that it will be good fun. Such good fun is this particular book that the reviewer, taking it to bed from a sense of duty, found himself wide awake and enjoying it at 2 a. m. . . . Just to show that this really is a serious subject, the author in a concluding chapter outlines the conventional mathematical formulæ for solving the problems which he has been handling with such originality. Exercises with fully worked-out solutions are given at the end . . . Though it may be bought in the first place by the Airman Cadet, we suspect that it will not be long before the said Cadet's father spends his crossword hour in making a quadrant and working out the various exercises for himself."

Demerec, M. See **Pennsylvania University**—Bicentennial conference.

de Sounin, Leonie. Magic in herbs. 207p. 1941. Barrows, New York, $2.
Journal of the American Dietetic Association, April 1942, p.246, 248. ½ col.
"Covers much more than its title indicates . . . To Madame de Sounin, herbs offer 'a touch, an accent, a great charm to foods.' She divides them into the 'fine' and the 'robust,' terms which are self-explanatory, and then details the special characteristics and uses of each. Like a painter with his palette, the author shows how one herb can be toned with another, the tender flavor of chervil, for instance, needing the support of basil, or chive, or of one of the more 'robust' herbs. Spices and berries, too, enrich the book's content, and equipped with these and a garden of herbs, the author proceeds to initiate the reader into the mysteries of herb butters and unusual sauces. She then goes on to vegetables, so often superficially if not cruelly treated, and tells how cabbage, celery root, oyster and eggplant, among other usually mistreated vegetables, can be magically transformed into a dish for the gods . . . There are separate chapters on meats, poultry and game, fish, menus and special soups

. . . Closes with full directions for a kitchen herb garden."

Journal of the New York Botanical Garden, March 1942, p.88. ⅜ col.

"An enchanting introduction to herbs. Its 'magic' will enthrall even those who already think they know their subject . . . While some of the menus are impractical for the average marketer, her chapter on vegetables should prove a boon and an inspiration to all who are anxious to reduce their food budget. Simple gardening instructions conclude the volume, pleasantly interspersed with additional comments on the use of each herb." *Marcia Garrick.*

Dick, Arthur A. Blueprint reading. 157p. Ronald, New York, $2.40.

Aero digest, March 1942, p.357. ⅜ col.

"Industry is demanding more and more persons who can read blueprints and mechanical drawings, even though they are not experienced mechanical draftsmen. Th author of this helpful book does not offer it as a substitute for a course in drawing; rather as a planned teaching device whereby students may be instructed in the reading and understanding of general blueprint fundamentals in a relatively short time . . . There are illustrations of many objects, alongside of which are the mechanical drawings needed to construct them. Detail and assembly drawings, isometrics, *etc.,* are clearly covered. The man in the shop who is weak in his understanding of blueprints will find helpful information in this book."

American machinist, March 19, 1942, p.266. ⅜ col.

"Printed in blue ink which lends itself to the use of positive cuts which simulate blueprints in appearance . . . Consists of two parts: the first devoted to information, and the second to a series of problems and assignments. The reader is first given the conventions used in mechanical drawing in the way of abbreviations, terminology, symbols, methods of notation and dimensioning. He is also given a series of sketches, both in perspective and projection to develop his powers of visualization."

Dominion Oxygen Company, Ltd. Fabrication of welded steel and wrought iron piping. 64p. The Company, Toronto, unbound.

Canadian metals and metallurgical industries, March 1942, p.38. ½ col.

"This book is, in reality, an abstract of an earlier publication, *Fabrication of Welded Piping,* and has been produced to provide a ready source of information for welding operators and supervisors, as well as for student welding operators . . . Profusely illustrated with line drawings to show the different types of welds and the proper techniques that should be employed."

Eberle, Irmengarde. Radium treasure and the Curies. Crowell, New York, $2.

Natural history, April 1942, p.240. ½ col.

"This small, popular book on Madame Curie and her momentous discoveries is intended for young people, and the author has made a most readable story of it . . . Following the biography of the Curies, some mention is made of the occurrences of radium, its recovery from the ore, and the uses to which it is put. The book is interestingly written, and should prove popular with the audience for which it is intended, even though the details are often rapidly skipped over —perhaps in a desire for brevity." *F. H. Pough.*

Eifert, Virginia S. Birds in your back yard. 240p. 1941. Illinois State Museum, Springfield, Ill., 60c. (Popular science series, no.2.)

Wilson bulletin, March 1942, p.24. ½ p.

"Mrs. Eifert . . . is concerned primarily with the birds of Sangamon County, Illinois; in that sense her notes are of local interest, but since the species that she pictures and discusses are not, most of them, local in their distribution her work will have value, and create interest, in an area very much more extensive than a single county or state . . . Against a gray background Mrs. Eifert has made excellent use of black-and-white to picture more than one hundred and twenty bird species . . . Chapters on attracting and feeding birds are included; there is a checklist of the birds of Sangamon County; notes on local bird distribution, and a bird calendar, week-by-week, adds to the value of the publication. Teachers throughout the Central States will find it particularly helpful . . . The work as a whole is accurately and artistically done." *Maurice Brooks.*

Elzea, L. S. Aircraft welding. 121p. 1942. McGraw, New York, $2.

Welding engineer, April 1942, p.49. ⅜ col.

"The author has confined himself to the gas welding of aircraft. As such he has described the equipment, tools, materials and type of welds and their characteristics . . . An important chapter . . . has been devoted to stresses . . . There is a discussion on jigs . . . Thirty pages . . . have been devoted to the problems of aircraft welding pointing out the various techniques to be employed and the pitfalls to be avoided in the welding of steel sheets and tubes as well as aluminum and stainless steel parts for aircraft . . . Closed with a brief chapter on mechanical drawing and blueprint reading . . . There is included some useful tables as well as current Air Corps Specifications."

Welding journal, March 1942, p.200. ⅓ col.

"Recommended for high-school welding courses, night-school classes, vocational schools, commercial aircraft schools and, in fact, any place where aircraft welding is taught . . . The use of highly technical terms has been avoided as much as possible and those that have been used have been explained thoroughly. Pictures of actual welds are presented . . . to give the correct idea of the appearance of good welds. The specifications and explanation of the official army test, with pictures and drawings to illustrate certain points, are included."

Farrall, Arthur W. Dairy engineering. 405p. 1942. Wiley, New York, $4.

Agricultural engineering, April 1942, p.142, 144. ½ col.

"A complete modern treatise of dairy engineering . . . In the preparation of this text, the author has drawn largely from his many years of experience as an instructor in dairy engineering at the University of California, and his research work in dairy machinery with one of the largest dairy-equipment manufacturing companies in the country. Chapter headings include the following: Physical and Chemical Properties of Milk; Simple Mechanical Principles; Power Transmission; Electric Power and Equipment; Hydraulics and Pumping; Heat Measurement, Transfer and Control; Steam and Its Use in the Dairy; Principles of Refrigeration: Insulation and Cold-Storage Rooms; Heaters—Coolers and Heat-Exchange Equipment; Ice Cream Freezing Equipment; Homogenizers; Pasteurizing Equipment; Evaporating and Drying Equipment; Can Washing and Sterilizing Equipment; Bottle Washers and Fillers; Cream and Butter Handling Equipment; Cheese and Casein Plant Equipment; Equipment Maintenance; Pipe, Pipe Fittings, Fitting and Soldering; Dairy Plant Design, Lay-out, and Utilization."

Food industries, April 1942, p.94. ½ col.

"More books of this type ought to be written for the food industries . . . Presents the engineering phases of dairy-plant operation with sufficient fundamental information to be useful to the practical plant operator as well as to the trained engineer . . . There are no less than 84 tables of practical data pertinent to dairy engineering, as well as many charts, drawings and photographs."

Ice and refrigeration, April 1942, p.256. ⅓ col.

"A complete modern treatise on dairy machinery and engineering. It emphasizes the principles of operation of all the chief types of dairy equipment, and presents data on the selection, operation and management of such equipment. An effort has been made . . . to treat the various

subjects so that they will be clearly understood by students and practical operators. Much data have been included on the care and servicing of plant equipment and reference tables are supplied covering the data frequently needed in the dairy plant and by students of the dairy industry."

Ford Motor Company. The Ford rubber plantations. 36p. The Company, Dearborn, Mich.

Rubber chemistry and technology, Jan. 1942, p.v. 4 l.

"Tells the story, in picture form, of the development of the Ford plantations in Brazil. The pictures . . . as well as the brief text, give an excellent idea of the problems involved in the vast project, as well as the methods by which they are being brought to a successful conclusion."

Frederick, John Hutchinson. Commercial air transportation. 493p. 1942. Irwin, Chicago, $4.

American aviation, April 1, 1942, p.21. ½ col.

"The purpose . . . is to bring material together from many scattered sources, and to analyze and interpret it so as to overcome the lack of study and teaching material on the commercial or business development side of air transportation. In most respects the book is excellent and will fill a definite need. However, in a few places Dr. Frederick would have done well to have included a little more interpretation instead of reciting only facts." *E. B.*

Aviation, April 1942, p.194. ⅔ col.

"Because of time-saving speed, air transportation, in the 15 years of its existence, has become invaluable to commerce and national defense. It has grown with staggering rapidity. Yet the possibilities of its further development challenge the imagination. Accepting the challenge, Mr. Frederick has collected material from extensive sources and carefully arranged it in the book for the benefit of the industry, its students and teachers, and its public users, present and future."

Journal of the aeronautical sciences, aeronautical review edition, March 1942, p.48. ⅓ col.

"A picture of the development of commercial air transportation in the United States, the growth and extent of Federal regulation concerning it, and the problems and services of the airlines . . . Does not confine itself to an intensive study of any one phase of the subject but endeavors to give a complete survey of all topics . . . Includes discussion of airport development, adequacy of feeder airlines, airline equipment and operation as well as airline financing, selling and promotion of air travel. Considered, too, are air express development, managerial problems of air cargo transportation and air-mail traffic rates under the C.A.A."

Fuller, Harry J. The plant world; a text in college botany. 592p. 1941. Holt, New York, $3.25.

Quarterly review of biology, March 1942, p.82. ⅓ col.

"Prepared . . . primarily for use by students who are registered in elementary botany courses but who do not intend to continue with advanced work . . . Divided into four main parts: the nature of plants and of plant study; the structure and physiology of flowering plants; a general discussion of the plant kingdom, including a very interesting and instructive presentation of plant diseases; and, finally, the distribution of plants in time and space. A summary is placed at the end of each chapter. The excellent illustrations and colored plates are a distinguishing characteristic of the volume. The appendix contains a modern classification of the plant kingdom, a complete glossary, and an index."

Gar Wood Industries, Inc. [Engineering data booklet.] 72p. The Author, Detroit, $1.

Heating, piping & air conditioning, March 1942, p.139. 8 l.

"A booklet of engineering standards for the use of contractors, engineers, architects and salesmen . . . Contains a great deal of useful information . . . Pertains primarily to residential work, although much of the information has wider application."

Gardner, Leroy U., ed. Tuberculosis in industry; report on the symposium held at the Saranac Laboratory for the Study of Tuberculosis, Saranac Lake, N. Y., June 9-14, 1941. 374p. National Tuberculosis Assoc., New York, $3.

National safety news, April 1942, p.62, 64. ¾ col.

"Consists of presentations and discussions of important aspects of the tuberculosis problem by specialists in the field . . . There are six main divisions and a total of thirty separate papers, covering the what, where, why, and how of industrial tuberculosis . . . Should prove valuable to all persons functionally responsible for or interested in industrial tuberculosis prevention and control." *E. J. Downing.*

Gause, G. F. Optical activity and living matter. 162p. 1941. Biodynamica, Normandy, Mo., $2.75.

Quarterly review of biology, March 1942, p.83. ⅔ col.

"This work is a discussion of asymmetry and dyssymmetry. By definition the first of these terms is made to apply to the arrangement of molecules in a structure, and the other to the arrangement of atoms in a molecule. Such structures can not be superimposed on their mirror images, to which they bear a heterostrophic relation. The author's thesis is that in inert substances either form of a heterostrophic pair can occur about as often as the other, but that in living organisms one form will always displace the other . . . The work is stimulating, but much more experimentation is needed before the theory can meet with universal acceptance."

Gerard, Ralph W. The body functions; physiology. 289p. 1941. Chapman & H., London, $1.75. (Wendt science series.)

Quarterly review of biology, March 1942, p.88. ⅓ col.

"One of a series . . . designed to give the reader more than just a superficial survey of the sciences, but at the same time to avoid the burden of technical terms . . . Enough anatomy, histology, and biochemistry are presented . . . to clarify the descriptions of functions, and numerous simple physiological experiments are described, assuring a thorough understanding of the principles involved. Each chapter is concluded with an excellent list of references, and the book contains a complete glossary-index."

Gesell, Arnold L., & **Amatruda,** C. S. Developmental diagnosis; normal and abnormal child development; clinical methods and practical applications. 1941. Hoeber, New York, $6.50.

Pennsylvania medical journal, March 1942, p.671. 1 col.

"A vast amount of knowledge dealing with this subject . . . Interesting as this material is, the reviewer doubts whether it actually is a matter with which the general practitioner should be concerned. There is no doubt about its importance to the pediatrician, and it is to this specialty [sic] that the book should be directed . . . Outlines early child development in the first section . . . Part II . . . deals with defects and deviations from the norms laid down in Part I . . . What to do about all this and the methods of finding out how, when, and where things are going wrong are all taken up in the last section . . . which deals with the protection of early child development . . . The appendix is a condensed manual of directions for the testing procedures . . . This volume, it must be stressed, is not a handbook for I.Q. testing. Rather it deals with the behavior aspects of developmental maturity from an objective standpoint, i.e., the

maturity and organization of the neuromotor system. In fact, it may be called developmental neurology . . . This text . . . is a very definite step toward early diagnosis and prevention of abnormal development of many members of our future generations."

Gibbs, G. I. The highway spiral. 229p. 1941. T. D. Toler, Roanoke, Va., $2.50.

Engineering journal, March 1942, p.201. 9 l.

"The object . . . is to explain and enlarge upon various formulas, particularly with regard to their practical application to highway alignment. Each of thirteen combinations of tangents, spirals and circular curves is presented separately in chapter form with examples applying formulas to numerical problems. A large section of useful tables is appended."

Gilman, Henry. See **Organic** syntheses.

Goodwin, Grenville. The social organization of the Western Apache. Univ. of Chicago Press, Chicago, $4.50.

Natural history, March 1942, p.181. ⅓ col.

"This book . . . is not merely one of the best accounts of an Indian tribe; it is unfortunately the last work of a young man of unusual talents. Grenville Goodwin began the study of the Apache when about 23 years of age and at his death ten years later left not only the manuscript for this book but notes planning several additional volumes. The reader who wishes to know the plain facts of Indian life will be the richer intellectually for having read this book . . . The author's insights, spread over the pages of the book, were secured by mastering Apache speech and spending long periods of time with his Indian friends. Yet this is not a sentimental book, just a clearly-written, factual account." *Clark Wissler.*

Gourley, Joseph Harvey, & **Howlett,** F. S. Modern fruit production. 579p. 1941. Macmillan, New York, $4.50.

Quarterly review of biology, March 1942, p.82. ⅔ col.

"After an introductory chapter on the economic aspects of the fruit industry, the present text leads into a discussion of the fundamentals of physiology, morphology, soils, and chemistry as related to fruit plants and their ability to yield products of fine quantity and quality. Such broad topics as orchard sites and soils, the planning and setting of orchards, fertilizers and manures, pruning and propagation, harvesting, storing and marketing of fruits are discussed in considerable detail, yet free from the technical language which usually limits the use of good texts to the professional man only. An extremely fascinating and informative chapter on the origin and improvement of fruits has been included. Each chapter lists the literature cited in that chapter, and the volume is concluded by a 12-page detailed index. The work will be of exceptional value in the hands of students of horticulture as well as orchardists."

Gray, George W. Advancing front of medicine. 425p. 1941. Whittlesey House, New York, $3.

Nature, March 14, 1942, p.285. 1⅓ col.

Ohio journal of science, March 1942, p.80. 10 l.

"His ability to give scientific information in clear, pleasing and understandable English without the usual exaggerations and misinterpretations is remarkable, especially for one trained as a reporter . . . Interesting and easy reading . . . More writers of Gray's type are needed to bring the findings of research and of professional practice into the scope of the public understanding." *D. F. Miller.*

Scientific American, April 1942, p.211. ⅓ col.

"Summary of the high points in our present-day knowledge of the nature of disease, under the headings of alimentation, high blood pressure, the sulfa drugs, influenza, allergy, anxiety, insanities, sleep, pain, smoking, drink, cancer, aging . . . There is no flashy writing here, just a good sound style without self-conscious trimmings; in other words, a book designed to appeal to conservative readers who want truthful pictures of the status of medicine." *A. G. I.*

Scientific monthly, April 1942, p.375. 2 col.

"Mr. Gray is an experienced writer on scientific matters. He grasps the subject, learns the details and then presents it in such a way as to hold the attention and make the facts clear . . . In the preparation of each chapter, Gray consulted the leading specialists in the field and studied the literature carefully . . . The fact that differing views are held on some topics is not blinked by the author; he does not oversimplify, and he avoids dogmatism . . . To every one who desires a survey of the advances made by medicine, with all that they signify for health and happiness, the volume can be heartily recommended as sound, comprehensive and balanced. Mr. Gray has rendered a valuable service to medicine and to intelligent readers." *Winfred Overholser.*

Greenleaf, John. Advanced modern navigation. 244p. 1941. Longmans, New York, $5.

Marine engineering and shipping review, March 1942, p.150. ⅛ col.

"Designed to provide a convenient text for the advanced navigator in which he can find every case which is likely to occur in the navigation of modern vessels, with the reasons behind each case and the operations set forth in a clear and understandable manner. While the book does not contain instructions for the use of the tabular methods so widely used, it is believed that if the navigator understands the structure of the astronomical triangle he will have no difficulty in applying the tabular methods . . . A helpful guide for candidates for officers' licenses of the various grades."

Grodzinski, Paul. Diamond and gem stone industrial production. 256p. 1942. N. A. G. Press, London, $3.50.

Jewelers' circular-keystone, April 1942, p.86, 96. 1¼ col.

"Discusses the cutting and polishing of diamonds and other gem stones, and contains much information about types of machinery, arrangements of equipment, the correct abrasives, the preparation of the stones and the machines and the speeds at which the work should be done. It is practical and matter of fact . . . An appendix contains a small bibliography, technical descriptions of some of the hard substances used industrially, and a list and description of the various abrasives, cements and cleaning mediums of value in gem preparation . . . Well illustrated with many cuts which show different types of machinery . . . Should prove valuable to gem cutters; amateur, jewel and industrial alike, since it is the only available work covering this field. It shares, however, a fault which has been noted before in European works, that of a calm assumption of superiority and authority that one cannot feel is well founded . . . The book is valuable because it is unique, it is probably essential to cutters, and industrial users of gems. It could be better, but will have to do until a better one comes along." *F. H. Pough.*

Tool engineer, April 1942, p.114. 8 l.

"All available experience of modern methods of machining of flat and curved surfaces including holes has been carefully sifted and arranged. The material . . . is based to a large extent on the traditions of craftsmanship. 183 illustrations are included."

Hansen, E. M. Modern marine pipefitting. 434p. 1941. Cornell Maritime Press, New York, $3.

Engineering journal, March 1942, p.202. 10 l.

"Essentials of marine pipefitting, with particular regard for special conditions, are presented . . . Emphasis has been laid on what the pipefitter will have to know in each phase of his work, as he follows a job from blueprint to completed installation on board ship. Glossaries of shipbuilding and pipefitting terms are included, and there are many working drawings and photographs."

Harper, A. E. Rhombic antenna design. 112p. 1941. Van Nostrand, New York, $4.

Electronics, March 1942, p.90. ⅔ col.

"Compiled . . . from published and unpublished data of the Bell Laboratories, stating that the prospect of libraries, students and other engineers being able to use the information prompted the formal publication of the data . . . Made up of off-set typewritten text in a large format . . . which makes the line drawings easy to read and use . . . Attractively bound and, in our opinion, may mark a new trend in technical publishing, avoiding the expense of typesetting and cut marking. Chapter headings indicate the contents of the book—general discussion of directional antennas, antenna gain and location, angles of arrival and departure, properties of rhombic antennas, effect of ground plane, directional characteristics, measurement and computation of antenna gain, transmitting and receiving antennas, maintenance, lightning protection, construction data. The constructional drawings are large folded sheets and give extended information on dimensions, angles, etc." *K. H.*

Hearley, M. J. Air navigation; some problems and their solution. 1942. Longmans, New York, 5s.

Journal of the Royal Aeronautical Society, Feb. 1942, p.58. ½ p.

"It is not quite clear . . . whether this book is intended as a 'brush-up' course for a practising navigator, or an introduction to the subject for an air cadet. The contents are evidently based on the pre-war syllabus for the 2nd Class Navigator's licence, but the style suggests that the reader is presumed to be embarking on the subject for the first time and with no background of mathematics . . . Divided into 37 chapters . . . each dealing with a separate problem, illustrated by a very clear diagram, and ending with one or two exercises, answers to which are given . . . All these problems are suitable for working out on actual maps, and are of a practical nature."

Huettner, Alfred F. Fundamentals of comparative embryology of the vertebrates. 416p. 1941. Macmillan, New York, $4.50.

Quarterly review of biology, March 1942, p.83. ⅔ col.

"It is obvious that the present volume is the product of long years of teaching experience. The clearness and order of the exposition are evidence of it. But, in addition, the author has for the major part provided original illustrations that actually reproduce the objects seen and do not require, as is often the case, a tremendous effort of cerebration and a vivid imagination . . . Descriptions are accurate, detailed, and expressed with remarkable simplicity of style and language . . . There is an index but no list of references. Except for this omission, the present textbook satisfies the most exacting requirements. It will undoubtedly prove very popular for college courses."

Huntington, Whitney Clark. Building construction; materials and types of construction. Ed.2. 674p. 1941. Wiley, New York, $6.

Engineering journal, March 1942, p.201. 11 l.

"Deals with the materials and types of construction used for the various parts of buildings, but not with the structural design except in its qualitative aspects . . . Particular attention has been paid to recent developments in our knowledge of soil behaviour, foundations, brick cavity-walls, wood construction and connectors, steel welding, reinforced concrete arches and rigid frames, the protection of wood from termites and the newer structural materials."

Engineering news-record, April 9, 1942, p.95. ⅛ col.

"Revision and rewriting of this book, which was published originally in 1929, has been so extensive as to make it almost a new text . . . Should prove a valuable addition to the libraries of all architects. Engineers who have occasion to do work in the building field only infrequently will find the book helpful as a source of basic information."

Professional engineer, March 1942, p.47. ¼ col.

"A good allround book for students and practising engineers alike . . . Up-to-date in every way since much new material has been included. Noteworthy is the attention that has been paid to the terminology used in building construction, the many special terms used in the construction field have been carefully defined and illustrated. Truly a *vade mecum* for construction engineers."

Institution of Production Engineers. Acceptance test charts for machine tools. pt.2. 32p. 1942. The Institution, London, 5s. 6d.

Mechanical world, March 20, 1942, p.264. ¼ col.

"This second volume of charts contains Nos. 7 to 13, covering the tests recommended for capstan and combination turret lathes, vertical boring mills, double standard vertical boring and turning mills, planer type surface grinders, surface grinders with vertically adjustable horizontal grinding wheel spindles, cup wheel surface grinder with horizontal wheel axis, and cup wheel vertical surface grinders . . . It is to be noted that there are yet further Acceptance Test Charts to follow in the series."

Jackson, Hartley E. Newspaper typography. Stanford Univ. Press, Stanford Univ., Calif., $2.75.

Inland printer, March 1942, p.36. ⅔ col.

"Designed to aid journalism students in acquainting themselves with the mechanical side of newspaper making . . . The book promises to fill this need, and to be useful as a reference manual among advertising and editorial employes. Starting with a history of type and type classifications, Jackson takes the reader successively through explanations of the physical characteristics of type, printer's measurements, the setting of type by hand, a discussion of rules, borders, and dashes, headline typography, the composing room, machine composition, presses and printing processes, and finally paper and ink . . . Discussion of the paper trade and its customs and the material on inks seemed a bit too brief . . . 'Newspaper Typography' in reality is a revision of an earlier text by Mr. Jackson, '26 Lead Soldiers,' which is in wide-spread use in college and high-school journalism departments. To produce his new book, Mr. Jackson rewrote each chapter of the earlier text, and added three new chapters, 'Newspaper Typography,' 'Paper and Ink,' and 'Presses and Processes.' Its simplicity in style and amplitude of illustrations no doubt will make [it] . . . a popular text and reference book."

Printers' ink, April 24, 1942, p.48. 10 l.

Jevons, J. Dudley. Metallurgy of deep drawing and pressing. Ed.2, revised and enlarged. 735p. 1941. Chapman & H., London, 50s.

Mechanical world, March 27, 1942, p.284. ⅔ col.

Metal industry, March 27, 1942, p.229. 1 col.

"This revised edition of a book already indispensable to all concerned in the deep drawing and pressing of metals will be of still greater value to many such harassed individuals who, in the present state of affairs, are continually being faced with new and urgent problems." *L. B. H.*

Sheet metal industries, March 1942, p.338. ½ col.

"This is a second edition called for within six months of the publication of the original work, which, as readers will recall, was something of a sensation in metallurgical and engineering literature. Bulky as the first edition was—and there was nothing superfluous—this new volume . . . contains additional information on light alloys and 'soft metal' tools." *R. W.*

"Kaspar." Teach yourself air navigation. 1942. English Universities, London, 2s. 6d.

Journal of the Royal Aeronautical Society, March 1942, p.86. ½ p.

"Here is yet another of that spate of books by which the fortunate air-minded youth of to-day is encouraged to 'teach himself' more than his elders have ever forgotten . . . Obviously written by a man with a good grasp of his subject and facility for imparting it. The subject-matter adheres fairly closely to the pre-war syllabus for the 2nd Class Civil Navigator's Licence; this probably accounts for the forcible insertion of a 16-page chapter on Meteorology, which over compression has made somewhat confusing. The rest of the book is, within its limits, lucid and satisfying, and fulfils its avowed purpose of imparting the fundamental principles of Air Navigation in a form that can be understood by students who know no trigonometry and next to no mathematics."

King, H. W., and others. Hydraulics. Ed.4, revised. 303p. 1941. Chapman & H., London, $2.75.

Engineering journal, March 1942, p.201. 10 l.

"Fundamental principles . . . are presented, including applications in engineering practice . . . Expanded treatment . . . [is] given to the subjects of viscosity, manometers, the energy theorem, laminar flow, compound pipes and non-uniform flow in open channels."

Kneeland, N., and others. Selling to-day's customer. 413p. Ginn, Boston, $1.76.

Journal of business education, March 1942, p.49. ⅓ col.

"An unusually new approach to the teaching of salesmanship. Each problem is considered from two angles, first from that of the customer and then from that of the sales person . . . The illustrative material is delightful. The book is filled with clever sketches, definitely planned to meet each particular problem . . . This is a welcome change from the apparently typical procedure of putting in illustrative material as an afterthought. This book is not only a pleasant but an effective introduction to the growing field of material in distributive education."

Practical home economics, April 1942, p.150. ¾ col.

"Textbook for high school students . . . Part I gives a general survey of distribution: Part II covers across-the-counter buying and selling; Part III covers general buying and selling; Part IV deals with the personality of both the salesperson and the customer; Part V discusses selling as a vocation . . . Presentation is simple and informal. Special selling situations are from actual service shopping reports. Study aids such as questions on the text, discussion topics and case situations give added appeal to the student."

Knickerbocker Mills Company. Short study of spices. 47p. 1942. The Company, 601 W. 26th St., New York, $1 (gratis to selected list).

Food industries, April 1942, p.94. 12 l.

"Everyone using spices and others with a thirst for knowledge about them will find this little book worth reading and having around for reference."

Spice mill, April 1942, p.36. ½ col.

"Issued . . . to commemorate the founding of the firm a century ago . . . Printed on heavy Kraft paper in large, easy-reading type, the text recites in brief, readable style the history of spices in general and then proceeds to discuss in an interesting manner specific items which concern the American spice trade. Line engravings in color of the spices reviewed illustrate the pages. There is also a large line map of the world showing the sources of the principal commercial spices, seeds and herbs."

Kolmer, John A., & **Tuft,** Louis. Clinical immunology, biotherapy, and chemotherapy in the diagnosis, prevention, and treatment of disease. 941p. 1941. Saunders, Philadelphia, $10.

Pennsylvania medical journal, March 1942, p.670. ⅓ col.

"Divided into two parts. In part I there is a general discussion of the subjects in the text-book manner suitable to the beginner . . . In part II the clinical application is faithfully recorded . . . The authors have made exhaustive reviews of the literature and the references are given at the end of each chapter, yet they have not failed to give their own preference in the matter of treatment. In other words, the student is not left in a quandary as to which of several methods to follow. Details of technics, of no interest to the practitioner, have been avoided. We predict that the book will find wide application and that another printing will shortly be forthcoming."

Kraehenbuehl, John O. Electrical illumination. 441p. Wiley, New York, $3.75.

Illuminating engineering, March 1942, p.136. 1 col.

"The principles underlying the specification and design of electrical lighting for commercial and industrial buildings are presented for the special benefit of architects, architectural and electrical engineers and engineering students . . . Only the important principles of lighting practice have been included, and an effort has been made to eliminate unnecessarily complicated mathematical developments . . . Flood-lighting and novelty lighting have been allotted what may seem to be excessive space because the author has found that information on this phase of lighting design is frequently in demand both by architects and by students and is not always fully understood . . . Illumination sources, general illumination design, methods of control and determination, luminous architectural elements, and maintenance and wiring are all discussed, with many charts and tables supplementing the text. Also . . . [there] are extensive and workable indices and bibliographies."

Kress, A. L. Foremanship fundamentals. 276p. McGraw, New York, $2.50.

American machinist, March 19, 1942, p.269. ⅔ col.

"Should serve to aid the foreman in making best use of his abilities and to give the higher executive a better understanding of the foreman's job . . . The author takes up in turn each of the functions of foremanship and suggests how they may be carried out correctly . . . While the foreman's main job is to get results, much of the emphasis in this book is put on the subject of human relations. For foremanship is the first line of management; and if management is to be truly effective the foreman must know his job thoroughly and perform it well."

Factory management and maintenance, March 1942, p.238. 8 l.

"Written for foremen old in experience or newly on the job. Practical advice about personnel problems, finding the right men for the right job, training, safety and accident prevention, wages and rates, handling grievances, and all manner of production procedures. Includes several case studies and comprehensive index."

Textile world, March 1942, p.93. ⅔ col.

"This is the best handbook on the art of managing people that has come our way. It probes deeply into the personnel problems which the average foreman is apt to have, and in a simple, straight-forward manner tells how the problem can be avoided, or at least disposed of . . . Throughout each chapter practical, simple, concrete examples of the problem and its solution are set forth in a readable and yet an authoritative manner. This really excellent book should be highly recommended to all industrial foremen . . . By knowing how to avoid personnel problems, many man-hours may be saved at this time when each man-hour is worth ten a year from now."

Kuehn, Martin H. Mathematics for electricians. Ed.2, revised. 254p. 1941. McGraw, New York, $1.75.

School science and mathematics, March 1942, p.303. ⅛ p.

"The author states that he has added several chapters on alternating-current problems, completely rewritten several chapters, and made minor changes in others. The purpose . . . is to combine in one volume instruction and practice exercises in both solving problems in practical electricity and principles of mathematics required in their solution . . . The explanations that accompany each new topic are simple, direct, and concise. There is an abundance of carefully selected exercise material on all topics, and illustrations are good." *G. E. Hawkins.*

LaBerge, Armand J. Woodworking for fun. 104p. Manual Arts Press, Peoria, Ill., $2.25.

Science news letter, March 14, 1942, p.176. 7 l.

"All sorts of things that boys want, which they can make themselves; kites, bows (two different types) and arrows, model boats, roller-scoots and speedscoots to give younger brothers and sisters, carved book ends. Diagrams and instructions are clear."

Leyson, Burr. Air raid safety manual. 92p. 1942. Dutton, New York, $1.10 unbound.

National safety news, April 1942, p.62. ⅜ col.

"A summary of air raid rules being used in this country and is based on the publications of the Office of Civilian Defense and similar materials developed in Great Britain. After a brief discussion of first aid . . . preparations for safety in the home are outlined . . . Other subjects covered include a description of the high explosive bomb and various types of incendiary bombs, protective measures against gas attacks, and air raid shelters . . . While most of the information . . . can be obtained from separate publications of the Office of Civilian Defense, this volume does offer a condensed, but adequate and non-technical, presentation of all that the average citizen needs to know about air raid precautions." *John M. Roche.*

McClung, L. S., & **McCoy,** Elizabeth. Anaerobic bacteria and their activities in nature and disease; a subject bibliography. Supplement 1: Literature for 1938-1939. 244p. 1941. Univ. of California Press, Berkeley, Calif., $3.50.

American journal of public health, March 1942, p.323. 1 col.

"Two volumes under the above main title first appeared in 1939, presenting approximately 120,000 entries of about 10,500 original journal articles, monographs, and other published reports, for a period of 122 years from 1816 to 1938 . . . The same general plan is followed [here] as in the original set, Preface, Instructions to Users, Subject Index Outline, Key to Abbreviations of Names of Journals, Section I Chronological List of References (corresponding to Volume I as published in 1939), and Section II Subject Index Sections, List of Species of Anaerobic Bacteria, and Index (corresponding to Volume II as published in 1939) . . . Contains a total of 2,685 entries." *Ivan C. Hall.*

McDonald, E. F., jr. Youth must fly; gliding and soaring for America. 221p. 1942. Harper, New York, $2.50.

Aviation, April 1942, p.194. ⅛ col.

"Soaring enthusiasts will welcome this with open arms; if only half the things the author argues and pleads for are realized the youngsters of America, to whom it is dedicated, may well adopt him as their patron saint . . . Explains the rudiments of gliding and soaring, but its principal and well developed theme is the problem of getting American youth into gliders now, as a means of developing pilot material for the future need of civil and military aviation."

Journal of the aeronautical sciences, aeronautical review edition, March 1942, p.49. ¼ col.

"An entertaining plea for youngsters, not yet old enough to fly motored planes, to learn gliding and soaring . . . Gliding and soaring, the author points out, is a comparatively inexpensive method of preliminary instruction for young men who wish to become aviators. It qualifies them for more rapid training in military and commercial aviation. Therefore, he concludes, it is an important adjunct to our war and defense efforts and should receive the encouragement of everyone."

Western flying, March 1942, p.102. ⅓ col.

"Presents a stimulating and persuasive answer to the problem posed by the President's call for pilots to man the 185,000 warplanes to be built in 1942;—how to select and train a vast army of aviators in the quickest and least expensive way . . . Here is a full description of methods, equipment, the achievements in this field, design advances, the glider as a military weapon, and ways and means of encouraging youth to further activity."

McGee, R. V. Mathematics in agriculture. 190p. 1942. Prentice-Hall, New York, $4.

Agricultural engineering, March 1942, p.110. ⅛ col.

"Designed especially to fit the needs of persons interested in agriculture. While the text is not meant to serve as an authoritative source on technical matter pertaining to agriculture, some technical matter has been included in an effort to vitalize the subject by giving to problems their proper agricultural setting . . . The following subjects constitute the main chapter headings: Mathematical Operations, Percentage; Equations; Lengths, Areas, and Volumes; Ration [sic] and Proportion, The Right Triangle and Trigonometry; Averages; Graphs; Special Applications of Practical Measurements; Exponents, Logarithms, The Slide Rule, and about twenty pages of tables."

Manning, Reginald W. What kinda cactus izzat? Augustin, New York, $1.25.

Natural history, March 1942, p.184. ⅜ col.

"When I first saw this little book, I was prejudiced against it by the Milt Gross title. But after I dipped into it, I was intrigued by the clever drawings and appropriate text. In short, I was unable to lay it aside until I had finished it . . . The author . . . is a good, dependable botanist . . . Altogether it is a most entertaining little volume, especially for those who have been in the cactus belt." *Clyde Fisher.*

Mark, H., & **Proskauer,** E. S., ed. Resins, rubbers, plastics; a looseleaf abstract service. v.1, no.1. 33p. Interscience Publishers, New York, $35 per year.

Chemical and engineering news, March 25, 1942, p.424. 1 col.

"The editors announce that they expect to supply some 500 to 600 pages during the year. Thus the present offering may be considered a 6 per cent sample . . . The abstracts appear to be well done . . . Naturally no abstract can meet every demand, but this reviewer's guess is that these will supply most needs. Perhaps it is unfair to criticize the narrow selection of sources represented by this first sample. But one is struck by the fact that only six publications supply these 16 abstracts . . . One wonders what has happened to all the others of the 86 publications listed in the prospectus . . . A start has been made with the new service, certainly, and the development of the idea will be watched with interest. Its value is not proved by the present offering."

Drug and cosmetic industry, March 1942, p.302. ⅓ col.

"For the man in the resins and plastics field, this service will bring to his attention all the pertinent information, and will enable him to collect it in an easily accessible manner."

Rubber age, March 1942, p.474. ½ col.

"The first issue of this abstract service, devoted to the complete field of synthetic resins, rubbers and plastics, including the scientific aspects of cellulose and fiber chemistry, consists of 33 pages, each 6½ x 9½ inches in size, and contains the table of contents of the service and a number of abstracts from the January, 1942, issues of various scientific and technical periodicals. The abstracts are fairly comprehensive, containing most of the data and facts of the original paper, with important graphs, curves and apparatus reproduced. The abstracts themselves are sub-divided for convenience of the user . . . [A] binder . . . is supplied at an extra cost of $3."

Meyenberg, F. L. Economic control of iron and steel works. 332p. 1942. Chapman & H., London, 25s. net.

Iron and coal trades review, Feb. 20, 1942, p.169. ¼ col.

"This work will be welcomed by many because it deals with a subject which too often has been a closed book to executive staffs . . . Contains all that one would reasonably expect to find, and the chapters on job accounts, standard costs, and the organisation of economic control will be absorbed with interest and advantage. Of course, readers will be able to adjust the general schemes laid down in the book to their own local conditions, and, not infrequently, to evolve something better, based on the author's work, applicable to their own immediate requirements. From the technical man's point of view there is probably an excessive amount of detail and subdivision, and one certainly gains the impression that the organisation set up to determine cost must add a fair amount to the selling price . . . The book is obviously written by a master of the subject, and it can be recommended to all who interest themselves in the financial side of their work."

Light metals, April 1942, p.138. 1⅓ col.

Machinery (London), March 26, 1942, p.233. ⅓ col.

Mechanical world, March 27, 1942, p.284. ⅜ col.

"While conveying a great deal of information and examining many questions critically, this book is unusually easy to read. Sir William Larke, in a foreword, says the author has a colloquial style and the gift of thinking aloud, which may contribute much to the clearness with which the subject matter is expressed, but the author's wide knowledge and detailed understanding of his subject is evident in every page . . . It is a fact that there are people of very different training in all industrial enterprises, but it is quite wrong that they should be ignorant of each other's work, for however much they try they cannot really work separately, and they are blind if they try to do so. In particular it is to the advantage of the technician to understand the administrative functions, and without doubt this book will help him, and he does not have to be concerned with steelworks—much of the book is equally applicable to manufacturing enterprises generally."

Metallurgia, Feb. 1942, p.124. 1¼ col.

"The purpose . . . is to discuss the individual parts of economic control and their connections with each other . . . These problems are discussed from the point of view of the iron and steel industry, but the fundamental explanations can be considered as valid for industrial works generally . . . The whole sphere of economic control is discussed in five sections: Accountancy; works' accounts; job accounts; standards costs; and the final part is devoted to the organisation of economic control . . . The subject is admirably presented, and since the author is an expert, the book could profitably form the basis of lectures on the subject at centres directly associated with the iron and steel industry . . . Although the reader will not agree with every aspect of the subject as presented, a study of the book will certainly lead to a better understanding of the relative importance of the various parts of an organisation with a view to obtaining maximum economic control. It will stimulate much discussion, especially among leaders of the respective sections who are mainly concerned with the success of their particular section, but, if criticism is of a constructive character, greater efficiency should result."

Miller, Lewis B., and others. Industrial water for pulp, paper and paperboard manufacture. 145p. Technical Association of the Pulp and Paper Industry, 122 E. 42nd St., New York, $5.

Pulp and paper magazine of Canada, March 1942, p.336. ⅔ col.

"The first book in . . . [the Association's] monograph series . . . A magnificent job . . . The scope . . . may be surmised from the list of chapter headings: Water Characteristics; Water Required for Pulp and Papermaking; Filtration of Water; Flocculation; Disinfection of Water; Removal of Tastes and Odors from Water; Corrosion and Its Control; Softening of Water; Boiler Feedwater Preparation and Analysis of Waters. These are followed by a Subject Index . . . The monograph has established a high standard to surpass."

Moss, Louis Quentin. Practical mathematics for shipfitters. 808p. 1941. Pitman, New York, $1.50.

Marine engineering and shipping review, March 1942, p.148. ¼ col.

"Virtually every problem in the book illustrates an application of a mathematical process to a real shipbuilding job. The practical character of the problems is further enhanced by the use of shipbuilding terms and symbols in the descriptions and specifications of problems. In many respects the book is self-teaching and therefore will be a valuable asset for shipfitters and other shipyard workers."

School science and mathematics, April 1942, p.397. ½ p.

"Prepared with the co-operation of the management of the Philadelphia Navy Yard. The teacher of geometry in academic high schools will find in this book an answer to the question, 'What is this theorem used for?' in certain instances, as it shows how many theorems are applied in ship building . . . The teacher of arithmetic will find applications of fractions and decimals . . . Contains a glossary of shipyard terms, and many practical problems complete with the answers." *Glenn Hewitt.*

Murray, F. J. Introduction to linear transformations in Hilbert space. 135p. 1941. Princeton Univ. Press, Princeton, N. J., $1.75. (Annals of mathematics studies, no.4.)

Bulletin of the American Mathematical Society, March 1942, p.204. 1⅓ p.

"The purpose . . . according to the author, is 'to present the most elementary course possible on this subject' and at the same time 'to emphasize those notions which seem to be proper to linear spaces.' Despite the assertion that these aims are not antagonistic, the exposition would be pretty tough going for the average graduate student . . . Contains many minor slips and typographical errors which may cause serious confusion . . . On the whole the book is a compact and unified presentation of a well defined part of Hilbert space theory, and as such may appeal to the reader interested in learning only that part of the theory which even a non-specialist often needs." *Paul R. Halmos.*

National Fire Protection Association. Employee organization for fire safety. 48p. 1942. The Association, Boston, 25c.

Occupational hazards, March 1942, p.34. ⅜ col.

"Devotes a separate section to the duties and responsibilities of each group in a business or industrial organization. None of the recommendations and suggestions made for personal and plant protection are [sic] either new or

untried. Each has proved its worth on countless occasions in the past; each, if carefully observed and put into regular practice, will be invaluable in any future emergency. What every employee must know about fire alarms, air raid evacuation procedure, fire appliances, incendiary bombs, and safety housekeeping is presented in detail, graphically illustrated to insure a complete understanding of this essential information."

O'Brien, Esse Forrester. Elephant tales. Steck, Austin, Tex., $2.

Animal kingdom, Jan.-Feb. 1942, p.32. ¾ col.

"A sure-fire book for the younger generation . . . There are twenty-eight tales about elephants, each one designed to bring out some characteristic of these huge but lovable animals. Tales of pygmies and giants; babies and centenarians; gentle, harmless souls and murderous rogues . . . The tales of 'How Wild Elephants Live,' 'Elephants Are Usually Good,' and 'When Elephants Cause Trouble,' give us an excellent picture of elephant habits, foibles and capabilities . . . Well illustrated with an excellent selection of photographs showing elephants at work and at play." *Claude W. Leister.*

Oliver, Wade W. The man who lived for tomorrow. 507p. 1941. Dutton, New York, $3.75.

American journal of public health, March 1942, p.324. 1¼ col.

"This book is marked 'a biography of William Hallock Park, M.D.,' but a careful and eager perusal reveals that it is both more and less. On the positive side may be counted (1) a beautifully written history of diphtheria, and (2) a somewhat less impassionate account of the development of the Bureau of Laboratories of New York City's Health Department. On the negative side there is too little of the man and practically nothing of tomorrow . . . No review for readers of this *Journal* needs to list the magnificent accomplishments of Park, for he is a part of our times and his life is, and must remain, one of the strongest and most enduring pillars of American public health . . . This is indeed a handsome book, beautifully written and beautifully manufactured." *Kenneth Goodner.*

Organic syntheses; edited by Henry Gilman and others. Ed.2, edited by A. H. Blatt. Collective v.1; revised edition of annual volumes 1-9. 580p. 1941. Wiley, New York, $6.

Chemical and engineering news, March 25, 1942, p.424. ½ col.

"In reviewing this volume it is difficult to refrain from superlatives. This collection of carefully selected and thoroughly tested synthetic methods for more than 250 organic compounds has proved of great value in both industrial and academic laboratories. The directions are given with such lucidity and detail that relatively inexperienced chemists can prepare a wide variety of important organic compounds expeditiously and with satisfactory yields . . . The plan of the first edition has been followed quite closely with necessary corrections and the additions of new or improved procedures . . . The general format including the typography, presswork, paper, and binding are excellent. The editors and contributors have done a painstaking and excellent job, and to them organic chemists should be deeply grateful." *H. A. Lubs.*

Science, April 3, 1942, p.358. 10 l.

Orleans, Jacob S., & **Saxe,** Emanuel. Commercial arithmetic knowledge of students in a collegiate school of business. 80p. College of the City of New York, New York, 60c. (Research study in education no.1.)

Journal of business education, March 1942. p.49. ¼ col.

"This significant research contribution to the field of business education . . . indicates the degree of success of collegiate students in solving forty problems in rather simple business arithmetic. Teachers who are troubled by their defects in teaching commercial arithmetic in the high schools will receive consolation in the surprising failures of a group of superior college students. The authors give a complete analysis of the reasons for the failures which will be of considerable use in the teaching of business arithmetic."

Palmer, W. G. Experimental physical chemistry. 321p. 1941. Macmillan, New York, $2.75.

American journal of science, April 1942, p.309. ⅛ col.

"The experiments contained . . . have formed part of a course of physical chemistry at the University Chemical Laboratory at Cambridge. They have been planned so that satisfying results can be obtained during a short laboratory period. The apparatus required is sufficiently simple that it may be assembled from ordinary laboratory equipment by the students themselves. Each chapter is introduced by a general outline of the theory of the subject. Detailed directions are given for each experiment and the calculations are exemplified by a completely solved example from data actually obtained in the laboratory using the prescribed apparatus . . . Several different experiments are included in each chapter covering the general scope of the usual laboratory course in physical chemistry." *Scott E. Wood.*

Analyst, Feb. 1942, p.76. ⅓ p.

"The author . . . has attempted to provide an approach to physical chemistry through the laboratory rather than the lecture room. In so doing he has introduced many features unusual in a practical book . . . One cannot help being impressed by several points. The apparatus used is of the simplest and, for the most part, can be readily assembled from ordinary laboratory equipment. The experiments themselves—some of quite an advanced type—can all be completed in a reasonably short space of time and with good prospect of obtaining satisfactory results. The theoretical portions are not always easy reading but are essentially modern and assume a passing acquaintance, at least, with calculus methods. Altogether, it seems that the author has succeeded in his aim and has produced an introductory textbook of physical chemistry in which theory and practice are well balanced." *Harold Toms.*

Chemical & metallurgical engineering, April 1942, p.170. ¼ col.

Engineering journal, March 1942, p.201. 9 l.

Journal of the Franklin Institute, April 1942, p.406. ⅓ p.

"There are eight chapters . . . It begins with illustrations of ways of making for gases and vapours the two estimations of weight and volume, to which all determinations of density must reduce. Crystallization and the properties of crystals is the next topic. In covering solutions and solubility, the subject is divided into three parts—simple systems in which one solution is in equilibrium with one or more pure phases (e.g., gases and water, salts and water, at normal temperatures); mutual systems where two or more saturated solutions are in mutual equilibrium and pure phases may be absent (e.g., partially miscible liquids, and equilibria between liquid and solid solutions); dilute solutions. Subsequent chapters deal with thermochemistry; ionization divided into the conductance of electrolytic solutions, the creation of electromotive force, and hydrogen indicators and buffer solutions; velocity of chemical reaction; surface chemistry including surface free energies, interfacial tension, adsorption at the solid-liquid interface, the preparation and properties of suspensoid colloids and heterogeneous or contact catalysis . . . The book is worthy of examination for determining its fitness for use in courses on the subject. It may also offer suggestions which may be valuable." *R. H. Oppermann.*

Parsons, John E. Percussion Colt re-

volvers; catalogue of a loan exhibition of percussion Colt revolvers and conversions, 1836-1873. Metropolitan Museum of Art, New York, $2.

Army ordnance, March-April 1942, p.786. ⅛ col.

"The exhibition of Colt revolvers, of which this book is the catalogue, is now being held at the Metropolitan Museum of Art in New York . . . The 130 pistols in the collection—ancestors of the present-day military weapons—date from the year, 1836, when Samuel Colt patented the first multifiring arm, to 1872 . . . This volume . . . is timely in bringing to attention the influence of modern industry upon arms development." *R. E. Lewis.*

Paszkowski, E. See **Bastyr, W., & Paszkowski, E., comp.**

Pennsylvania University — Bicentennial conference. Cytology, genetics, and evolution; by M. Demerec and others. 168p. 1941. Univ. of Pa. Press, Philadelphia, $2.

Quarterly review of biology, March 1942, p.83. ¼ col.

"A collection of papers by twelve of the most eminent biologists of the country. The topics covered concern a variety of approaches, techniques, and problems but all referring to the elements of the cell, their properties, and behavior . . . Few symposia have produced such an aggregate of stimulating articles as we have here. One does not find the dull reexamination of well-known past accomplishments nor the repetition of textbook statements. The investigators represented are probing deeper into the fundamentals of biology and the student can find no more illuminating record of the advances being made or hoped for than the summary presented in this volume."

Science, March 27, 1942, p.327. 2 col.

"A survey of the subject as a part of the bicentennial celebration of the founding of the University of Pennsylvania. The papers are grouped into four departments, with three in each group: Chromosomes and Heredity, Cytogenetics and Evolution, Cytology and Genetics of Protozoa and Physiology of the Nucleus. The contributors and their subjects run as follows . . . Demerec, M. 'Nature of the Gene' . . . Metz, Charles W. 'Chromosome Structure' . . . Schrader, Franz. 'The Sex-chromosomes, Heteropycnosis and its Bearing on Some General Questions of Chromosome Behavior' . . . Blakeslee, Albert F. 'Cytogenetics and Evolution' . . . Dobzhansky, Th. 'Chromosome Differences between Races and Species of Drosophila' . . . McClung, C. E. 'Evolution of the Germ Plasm' . . . Jennings, H. S. 'Hereditary Status of Rhizopods' . . . Diller, William F. 'Nuclear Behavior and Reproduction in Ciliated Protozoa' . . . Sonneborn, T. M. 'Inheritance in Ciliated Protozoa' . . . Churney, Leon. 'The Physicochemical Properties of the Nucleus' . . . Duryee, William R. 'The Chromosomes of the Amphibian Nucleus' . . . Henshaw, Paul S. 'Radiation and the Cell Nucleus' . . . These authors present a brief summary of important problems in their fields. The tentative nature of the subject is indicated strongly and the line of future work pointed out. Naturally, in so diversified a subject, there is lack of agreement, but it is surprising to see how far it really obtains on broad general principles. There is, for instance, practically no disagreement with regard to the chromosome theory of inheritance. Expressed or implied, it lies at the basis of each paper. In view of the fact that the subject of cytology is but seventy-five years old, and modern genetics but forty years, this is not a bad record. As presented in the symposium here it offers a very hopeful prospect for future developments." *C. E. McClung.*

Philip, Maximilian. Principles of financial and statistical mathematics. Revised edition. 335p. Prentice-Hall, New York, $3.50.

School science and mathematics, March 1942, p.302. ½ p.

"The material covered is not usually found in a single volume. Part I includes material in arithmetic, elementary algebra and simple geometric relations . . . Part II includes much of the material offered in standard works on financial mathematics . . . Part III is entitled 'Statistical Methods.' It would probably be classified as primarily mathematical statistics rather than applied statistics . . . Answers are provided to the major portion of the exercises. In several places the number of problems seems hardly adequate, particularly if it is desired to make different problem assignments in different semesters. In some places one might question certain statements . . . On the other hand certain sections are definitely to be commended." *Cecil B. Read.*

Pierce, David E. Chemical engineering for production supervision. 232p. 1942. McGraw, New York, $2.50.

Canadian chemistry and process industries, March 1942, p.35. ⅛ col.

"Material and problems on (1) general principles of chemistry and physics, which provide an understanding of the processes involved; (2) transformation of energy, to acquaint the student with calculations involving energy in its various forms; (3) the five unit operations of chemical engineers which are of major importance in most chemical plants, viz., heat transfer, evaporation, distillation, drying, and the flow of liquids. An appendix containing temperature and pressure steam tables, properties of super-heated steam, dimensions of standard pipe and logarithmic tables complete the book, and provide a ready source of information."

Chemical and engineering news, April 10, 1942, p.484. 1½ col.

Chemical & metallurgical engineering, March 1942, p.159. ⅝ col.

"In the preface, the author states that the book is 'Presented with the hope that it will meet the need of non-technical operating men for a simple explanation of the equipment for which they are responsible.' He has accomplished his purpose by careful choice of subject matter and the inclusion of many illustrative problems carried out in sufficient detail so that supplying missing steps is unnecessary . . . The main use . . . will undoubtedly be as a text in the training of the non-technical men of the chemical industry . . . For this use, the book seems admirably designed, containing an excellent balance between descriptive matter, theory and problem material . . . Highly recommended to the non-technical men of our chemical industry who are interested in the 'whys' and 'wherefores' of their operations." *William T. Dixon.*

Chemical industries, March 1942, p.370. ¾ col.

"This excellent book is the first to be written as a result of the Federal Government's Engineering Defense Training program. It is based on the notes and problems prepared by Mr. Pierce and his associates, all of the Röhm and Haas staff, for the courses given by them for the operators, foremen, and supervisors in their company . . . The course is now in its second successful year . . . Information basic to many phases of chemical engineering is . . . given . . . In all cases the discussion of fundamental principles predominates, rather than extended descriptions of many types of equipment. The value of calculations in the development of an understanding of principles, is emphasized . . . Contains 230 problems, and care has been taken to use dimensions and flow rates which are typical of plant equipment. Any engineering college instructor will find here problems useful in his own classes . . . Should be particularly useful at this time because of the shortage of technically-trained men in plants straining for increased wartime production." *M. C. Molstad.*

Pigott, E. C. Chemical analysis of ferrous alloys and foundry materials; modern

practice and theory. 362p. Chapman & H., London, 28s. net.

Metal industry, March 27, 1942, p.229. 1⅓ col.

"The author has brought together in a handy volume a collection of methods of analysis which are with some exceptions well chosen and up to date . . . Some of the descriptions of analytical methods are careless . . . A useful book which could have been made more useful still by judicious editing of the material."

Metallurgia, March 1942, p.152. ⅞ col.

"Written from the viewpoint of the works' chemist, this book embraces the marked advances in metallurgical analysis necessitated by the introduction of complex ferrous alloys . . . Industrial analysts will find much that is fresh and many modern methods, from scattered sources, have been developed and included as text-book methods; in addition, processes developed by the author for the determination of aluminium, beryllium, chromium, tin, iron and manganese are included, as well as reconstructions of many recognised methods for other elements. In all, twenty-eight elements are dealt with . . . Information on the extraction, general and chemical properties, and application of each element precedes the actual methods of analysis, whilst some account is given of the evolution and the theory underlying these methods . . . The general treatment is based on the requirements of both analyst and advanced student; the former requires rapid and reliable methods, specific for the elements concerned, whilst the student's requirements embrace theoretical consideration of the principles involved in the development of these processes. The author . . . is an authority of a high order, and this book will be regarded as a standard work on chemical analysis in its relation to ferrous alloys."

Portland Cement Association. Plans for concrete farm buildings. Ed.2, revised. 56p. The Association, 33 W. Grand Ave., Chicago.

Agricultural engineering, March 1942, p.110. ⅓ col.

"The general plan . . . is to present essentials of quality concrete and sound building construction on the farm . . . Includes instructions on how to make quality concrete, including footings, foundations, basement walls, floors, and masonry construction, and also including the insulation of concrete buildings. The plans for various structures featured . . . include general-purpose and dairy barns, milk houses and cooling tanks, poultry houses, hog houses, grain and other storages, cellars, greenhouses, water supply tanks, manure pits, etc., etc."

Proskauer, E. S. See **Mark,** H., & **Proskauer,** E. S., ed.

Rabl, S. S. Practical principles of naval architecture. 181p. 1941. Cornell Maritime Press, New York, $2.

Engineering journal, March 1942, p.202. 10 l.

"This simple introductory volume . . . explains first the essential mathematics. It then describes the various steps leading to the construction of the ship: lines, buoyancy, displacement, stability and trim calculations, etc. Launching is discussed, and the later chapters deal with the strength of materials and of floating structures. Ease of comprehension has been emphasized."

Ramsay, John D. Refractories; the backbone of industry. 116p. North American Refractories Co., Cleveland.

Combustion, March 1942, p.51. ⅛ col.

"The story of refractories, which comprises Part I of this book, is reprinted from a series of ten articles which appeared in 'Brick and Clay Record' which describe in an informative way the historical, technological and economic aspects of the refractory industry. Part II comprises a chapter devoted to the history, development and products of the North American Refractories Company . . . Illustrated."

Read, Thomas Thornton. Development of mineral industry education in the United States. 298p. 1941. American Institute of Mining and Metallurgical Engineers, New York, $2. (Seeley W. Mudd series, no.3.)

Economic geology, March-April 1942, p.156. 1⅓ p.

"A historical survey rather than a compendium of knowledge about a group of minerals . . . The main reason for the study, so the author states in his preface, was 'the hope of benefiting young engineers through contributing to the development of better educational institutions for them.' This admirable purpose is developed in the final chapter, which is entitled 'Summary' . . . This chapter contains the real worth and essence of the book, and should prove very interesting to all connected with economic geology, mining, or metallurgy. The rest of the book, however, does not measure up either in content or in treatment to this final chapter. Its style is that of a scientific report on a laboratory experiment rather than a historical treatise . . . Due to this unfortunate style and treatment the book will have little appeal to anyone except those directly concerned with the educational problems of schools of mines and geology. It has no appeal to the layman, and the average scientific reader will probably be discouraged long before he reaches the excellent final portion. For this reason it may not reach as many people as it should. There has been a need for this type of book in the mineral industry, and it is to be hoped that the detriments will not prevent its potential value from being realized. Despite this underlying worth, however, and despite Herbert Hoover's comment that it 'does honor to the profession and has contributed to strengthen its foundations,' this volume is somewhat of a disappointment when compared with its predecessors in the Seeley W. Mudd Series." *William E. Benson.*

Engineering and mining journal, March 1942, p.100. 1 col.

"A splendid picture that is just what its title indicates. The skill of historical research, the keen discernment of an engineer of broad training and wide experience, the interpretative ability of a scholar have all been used in painting this picture. Names of men and institutions, dates, interesting incidents, causes and effects, have been searched out, evaluated, and combined. The result is a book that has a wide appeal to anyone who has had contact with a mining school or who is interested in the problems of technological education. To say that this book constitutes an important chapter in the history of technical education is quite true—but it is much more than this. It is the family tree of the educational side of a great profession . . . It is living history, written with a virile, facile pen. No one in the country could have done a better job than Dr. Read, and many of us wonder whether anyone but he could have done it at all. This book is an enduring monument to him whether you take it as plain history, as an interesting volume, or as a skillful and human tracing of the evolution of a great profession from the practical art of the Middle Ages. The Seeley W. Mudd Memorial Fund may take a just pride in having sponsored this outstanding addition to the literature of our profession." *A. O. Callen.*

Reed, Brian. Producer gas for road transport. 1941. Railway Gazette, London, 6s.

Engineer, Feb. 20, 1942, p.161. ¼ col.

"Deals very clearly with the various aspects of his subject, both economical and technical, and vehicle users should welcome this reprint. The producer gas vehicle has proved itself; it may have a future after the war; that will depend upon the success of engineers in overcoming certain defects, particularly in the larger sizes, and more still upon the price of appropriate fuels."

Regli, Adolph C. Rubber's Goodyear; the story of a man's perseverance. 248p. 1941. Messner, New York, $2.50.

Journal of the New York Botanical Garden, March 1942, p.87. ½ col.

"Here in the life of Goodyear, as in the lives of so many other unsung benefactors of modern society, we find those qualities of persistence, foresight and sacrifice which have been associated with the real benefactors of mankind. The opprobrium of the debtor's prison, the humiliation of bankruptcy, ill-health, sorrows and poverty were Goodyear's rewards for discovering the vulcanization process in the handling of rubber. Another, undoubtedly, would have made the discovery, had he not, but many years might then have elapsed before that accomplishment which taught how to overcome its brittleness in winter and its odorous gumminess in summer. Simple things, but it took one man's lifetime to show the world, and in this volume is the story of his labors." *E. H. Fulling.*

Rubber chemistry and technology, Jan. 1942, p.v. ¼ p.

"Written in fictional form, the narrative reads smoothly, dealing with events in chronological order . . . The three concluding chapters, 'Pioneers in Rubber', 'The Industry in America', and 'New Uses for Rubber', describe briefly the sources of rubber, the history of the development of the rubber industry, the stature and attainments of the industry, and the uses and applications of rubber."

Rogers, Austin F., & **Kerr,** P. F. Optical mineralogy. Ed.2. 390p. McGraw, New York, $3.75.

Engineering and mining journal, March 1942, p.100. ⅛ col.

"This volume's predecessor was known as 'Thin-Section Mineralogy,' issued seven years ago by the present senior author . . . The text still applies primarily to the original purpose and the general form of treatment remains the same. Some parts have been rewritten or reorganized to extend the usefulness of the book and various new diagrams have been added."

Ruch, Theodore C. Bibliographia primatologica; a classified bibliography of primates other than man. pt.1: Anatomy, embryology and quantitative morphology; physiology, pharmacology and psychobiology; primate phylogeny and miscellanea. 241p. 1941. C. C. Thomas, Springfield, Ill., $8.50.

Dental rays, March 1942, p.63. 12 l.

"It is believed that primate biology in the future will be used in teaching and in research in medical science. This is the first time that a bibliography on the primates other than man has been published."

Quarterly review of biology, March 1942, p.78. ⅝ col.

"Serious scientific study of man's nearest animal relations, the lemurs, monkeys, and apes, has for a long time been sadly neglected. In the last few decades, however, rapid progress has been made, resulting in the young and promising science of primatology. The accumulated knowledge in this important specialty is represented by the 4630 titles of morphological and physiological papers which have been painstakingly collected and classified in the present volume. A future, second part . . . will deal with pathological and taxonomic studies on primates . . . This scholarly bibliography is indispensable to all newcomers in primatology and will be particularly helpful in preventing repetition of work that has already been accomplished . . . Biology and medicine have been rendered a great service with this unique, practical, and excellently printed volume which forms a very essential part of a safe foundation on which to build in the future."

Science, April 3, 1942, p.358. ¾ col.

"Publication Number 4 of the historical laboratory of Yale Medical Library . . . A beautifully prepared volume of double column format . . . Classification is largely by subject, with items arranged by author, but in the case of literature up to the nineteenth century it is chronological. Where an entry covers two subjects it is entered under the principal one and cross indexed under the other. The effort is always to make the bibliography practical . . . Separate publications are distinguished by having the titles printed in italics. The use of capital letters is reduced to a minimum. Total pagination is given in every case . . . A system of markings is adopted which indicates the extent to which an article presents primate material. As a further means to exact determination the character of the publication is indicated—abstract, review, lecture, etc. Finally the name of the animals treated is given in abbreviation." *C. E. McClung.*

Scott, Walter Dill, and others. Personnel management; principles, practices, and point of view. Ed.3, revised. 589p. 1941. McGraw, New York, $4.

Advanced management, Jan.-March, 1942, p.48. 1⅛ col.

"In the third edition of this work, first published in 1923 and revised in 1931, the authors have endeavored to take account of the major developments in personnel administration and industrial relations during the past ten years, particularly the mass of social and labor legislation, the discoveries and advances in the field of industrial psychology, and management's attempts to adjust their practices and policies to these new factors . . . The major weakness of the book is its failure to take full account of the impact on personnel administration of the rise of organized labor and collective bargaining . . . The outstanding contribution of this work lies in the field of the more technical and highly specialized phases of personnel administration. These are particularly the fields in which the findings and researches of the industrial psychologist have their greatest application. A wealth of valuable information is presented and the book should be extremely helpful not only to students of personnel administration but to those engaged in actual administration." *Carroll E. French.*

National safety news, April 1942, p.62. ⅝ col.

"In making the revision, 231 questionnaires were returned by companies employing nearly 2 million employees, located in 25 different states and including 47 different types of business activity. These questionnaires on current practice covered the subjects of employment procedure and maintenance, employee security programs, development and training programs, and personnel research and control. A detailed tabulation of these questionnaires is contained in a 20-page appendix, but the material developed by the survey is also interwoven with the text . . . An extensive bibliography is furnished with each chapter . . . This edition, possibly even more than its predecessors, is one of the two or three standard books that every personnel executive will want to have in his library and one that may be confidently handed to the learner as being readable, informative and authoritative." *Glenn F. Griffin.*

Sears, Victor Hugo. Basic principles in dentistry. 195p. 1942. Pitman, New York, $3.50.

Dental rays, March 1942, p.63. 7 l.

"The subject matter . . . is largely on the science of complete and partial denture construction, which is theoretical rather than practical. The principles of physics in relation to dental prosthesis is [sic] discussed . . . Contains many illustrations."

Journal of the American Dietetic Association, April 1942, p.248. ½ col.

"The presentation is concerned on the whole with artificial means of correcting either physical neglect or what some may believe to be hereditary shortcomings."

Sears, William R. The airplane and its components. 75p. 1942. Wiley, New York, $1.25.

Aero digest, April 1942, p.228. 1 col. including an illustration.

"The airplane's components are discussed not only as to their functions, but also as to their effects on the aeronautical engineer's primary problems—dependability, light weight and aerodynamic refinement."

Aeronautical engineering review, April 1942, p.49. ¼ col.

"Subjects covered are: types of aircraft and airplanes, external and internal airplane components, aircraft radio and instruments, airplane engines, and propellers."

American aviation, May 1, 1942, p.23. ⅛ col.

Professional engineer, March 1942, p.55. ¼ col.

"Intended to be an introduction to the field of aeronautical engineering. Some technical knowledge is required in order to get the most out of this volume. Underlying engineering principles are clearly set forth . . . Engineers contemplating entering the field of aeronautical engineering would do well to begin with this book."

Segeler, C. George. War protection of the gas industry. American Gas Assoc., New York, $5 (Members, $2.50).

American Gas Association monthly, April 1942, p.126. ⅔ col.

"Issued in loose-leaf form so that up-to-the-minute changes can be made as new information becomes available. This will be sent to purchasers . . . without further charge . . . Divided into two principal parts, 'Protection Against Enemy Action' and 'Emergency Procedures after Damage Occurs.' All parts of the problem are covered including sabotage protection, air raid and artillery protection and procedures, training of personnel, cooperation with authorities, blackout, etc. An important part . . . is a description of the actual damage to gas company property which has been reported from English, European and other foreign sources . . . A comprehensive source of information."

Sherman, Henry C., & **Pearson,** Constance. Modern bread from the viewpoint of nutrition. 118p. 1942. Macmillan, New York, $1.75.

Journal of health and physical education, April 1942, p.280. 7 l.

"Discusses the whole history of research in breadmaking, with special reference to the recent changes made to enrich white bread from the nutritional standpoint, and includes authoritative advice on the use of bread in the daily diet."

Journal of the American Dietetic Association, April 1942, p.246. ½ col.

"In this timely book Dr. Sherman and his co-author point out that there are actually many different kinds of enriched bread and many gradations between the kinds officially distinguished. For instance, dried skim milk in breadmaking has added materially to the nutritional value of bread, likewise the use of vitamin-rich yeast, the retention or return of wheat germ to the bread dough, as well as the introduction of vitamins and minerals *au naturel* or as artificial concentrates . . . The authors assume a realistic, yet open-minded, attitude toward the problem . . . The lay reader will be likely to find all of his questions concerning the 'new' bread answered in this book. The dietitian and nutritionist will find the chapters on protein, mineral, and vitamin values, as these relate to bread, authoritative and unbiased."

Practical home economics, April 1942, p.161. ⅓ col.

"Timely and valuable . . . Topics included in the seven chapters are: the new bread problems created by dietary progress; the characteristics of modern bread; its protein, mineral and vitamin values; its quantitative place in the diet; and the present trends and future of this staple food. There is an extensive bibliography and a good index." *James A. Tobey.*

Shields, Bert A. Air pilot training. 602p. 1942. McGraw, New York, $4.

Aero digest, March 1942, p.410. ⅓ col.

"Elementary principles of aerodynamics, meteorology, air navigation and power-plants are covered, and no previous technical education is required in order to understand each subject . . . All unnecessary technical terms have been avoided, and an explanation of each new aviation term follows its appearance for the first time."

Journal of the aeronautical sciences, aeronautical review edition, March 1942, p.49. ⅓ col.

"Frequent use is made of photographs and line drawings to supplement the written explanations and each basic principle is tied in with its application to the particular type of flight problem or procedure . . . The student flyer will probably find particularly helpful the practice of explaining each new aviation term as it makes its first appearance in the text."

Western flying, March 1942, p.102. ⅓ col.

"Covering all the essential material required for private and commercial pilots' licenses and, at the same time, presenting this material in a manner conforming to the courses set up by the Civilian Pilot Training programs, this book should prove especially helpful . . . The first two parts . . . cover Aircraft and Theory of Flight, and Aircraft Engines. Part three covers Meteorology and Part four Air Navigation. All of the latest advances and improvements in aviation have been included; and in addition descriptions are given of several devices of proved merit which are still in the experimental stage but which in all probability will soon be adopted for general use."

Siler, J. F., and others. Immunization to typhoid fever. 276p. 1941. Johns Hopkins Press, Baltimore, $2.50. (American Journal of Hygiene. Monographic series, no.17.)

American journal of public health, March 1942, p.328. ⅝ col.

"This comprehensive report of seven years' experimental investigation by scientists of the United States Army Medical School research laboratories is an outstanding contribution to our knowledge of immunization against typhoid fever . . . Each phase of the investigation is discussed in detail and results are presented in a logical and orderly manner well documented with tables, sample protocols, and a series of appendices explaining details not given in the main text . . . There is need for more such critical studies of methods in public health practice and it is pleasant to record that the authors indicate that these investigations are to be continued by similar studies on immunization against paratyphoid fevers and consideration of problems of cross-immunization." *E. K. Kline.*

Smith, P. deW. Modern marine electricity. 279p. 1941. Cornell Maritime Press, New York, $2.50.

Marine engineering and shipping review, March 1942, p.150, 152. 8 l.

"Designed principally for the operating marine electrician, this book covers that part of the ship's electrical equipment that he should know to understand his job, together with information on maintenance that should prove helpful. The topics discussed include light and power, generators, motors, operation and care, electric propulsion, electromagnetic couplings, interior communication and maintenance."

Smithline, Henry, & **Thompson,** C. O. Business arithmetic; a revision of the original Thompson's business arithmetic. 496p. 1941. Prentice-Hall, New York, $1.60.

School science and mathematics, March 1942, p.304. ⅓ p.

"Contains sufficient material for a full year course. Problems from the various fields of business have been included. Practical suggestions for attacking problems and six steps to follow in solving problems are presented. The problems in each lesson are classified under three headings—fundamental problems, mental problems, and written problems . . . The authors have treated particularly well the topics on Depreciation and Payrolls. Home-ownership in Unit Six is quite comprehensive and includes financing the house, the maintenance of real estate, fire insurance, collecting on insurance, and making alterations. The units on Money and Credit and Social Security could be treated more extensively . . . Suitable for the use of junior [sic] and seniors in high schools." *A. W. Youngblood.*

Smithline, Henry, & **Thompson,** C. O. College course in business mathematics. 317p. Prentice-Hall, New York, $1.40 (Schools, $1.05).

Journal of business education, March 1942, p.49. ⅔ col.

"A text that builds skills which will have vocational value in the varied directions which business takes. It presents a well-organized plan for putting into practice modern theories of teaching in a practical presentation. The main features . . . are: (1) Units of work with definite daily learning objectives and ample materials for practice; (2) The building of facility in the use of business arithmetic . . . Will be of great interest to teachers of business arithmetic who will welcome it for the clearness of presentation and the adequacy of the materials included."

Sorsby, Arnold. Medicine and mankind. 256p. 1941. Faber, London, 12s. 6d. net.

Nature, Feb. 28, 1942, p.233. 1¼ col.

"Dr. Sorsby, opening with an account largely historical of the relations between health and disease and the theses which have governed our attitude at different stages of progress, goes on to a statement of health from the physical point of view. He then proceeds to discuss in sequence the ill-formed body, the ill-balanced body, the abused body and the assaulted body. This enables him to set out in due proportion such diverse subjects as experimental embryology, endocrinology, dietetics, including the accessory food factors, the new dye-stuff medication, allergy and bacteriology. Treatment equally has its place and is conveniently divided into chapters on individual and collective measures . . . A competent and careful study. It should be of use to the practising physician anxious to keep in touch with the broad lines of thinking medicine; it should also be of use to the man in the street with sufficient intelligence to appreciate his limitations. There are numerous illustrations which have been happily chosen to simplify the subject-matter and enhance its application." *Joseph Geoghegan.*

Sounin, Leonie de. See **de Sounin,** Leonie.

[Steel.] Modern gun production. 51p. 1941. Penton Pub. Co., Cleveland, $1.

Engineering journal, March 1942, p.202. 10 l.

"A number of articles which have previously appeared in *Steel.* The principles of gun construction and manufacturing operations as carried out at the Watervliet Arsenal and by the Struthers-Wells-Titusville Corporation are described. There are also articles on the design and production of gun carriages, recoil mechanism, range finders and fire-control instruments."

[Steel.] Modern shell production. 159p. 1941. Penton Pub. Co., Cleveland, $1.50.

Engineering journal, March 1942, p.202. 9 l.

"The material contained in the first [Modern small arms] and second [Modern gun production] handbooks on ordnance production prepared by *Steel* appears again in the present publication, together with new material on the manufacture of cartridge cases, ammunition for small arms, and bombs and fuses. Much practical, up-to-date information is presented, with excellent illustrations and drawings."

Stoddard, Stuart V., & **Baker,** C. P. Moisture characteristics of carbon black. 16p. Dept. of Chemistry, Northeastern Univ., Boston.

Rubber chemistry and technology, Jan. 1942, p.vii. 6 l.

"The results of investigations on the amount of moisture present in carbon black throughout the common range of atmospheric humidities, and the rates of sorption and desorption from high to medium and low relative humidities, are given . . . A single grade of pelletized rubber black was used throughout. Equipment used is illustrated, methods of tests are outlined, and conclusions drawn are given."

Stratton, J. A., and others. Elliptic cylinder and spheroidal wave functions; including tables of separation constants and coefficients. 127p. 1941. Wiley, New York, $1.

Electrical engineering, April 1942, p.228. 11 l.

"Attempts to define certain standard forms of the solution of the wave equation, and presents a collection of formulas giving the important mathematical properties of certain elliptic and spheroidal functions. There is also a set of tables from which values of the solutions can be obtained for the more interesting ranges of the variables. The intention is to increase the practical use of these mathematical tools."

Review of scientific instruments, April 1942, p.180. ⅔ col.

"This booklet will heartily be welcomed by anyone who has to deal with wave problems involving elliptic cylinders or spheroids, for although the functions here met have long been the subject of mathematical investigations, the great diversity of forms in which they have been represented, and the lack of adequate tables for their computation present formidable obstacles to one who wishes to drive through to the numerical solution of a concrete problem. The present publication goes a long way toward overcoming these obstacles, and holds the promise of the later publication of tables of values of the functions themselves." *H. P. Robertson.*

Suffolk Iron Foundry (1920), Ltd. Practical handbook on oxy-acetylene welding. 174p. 1942. The Author, Sifbronze Works, Stowmarket, England, 5s. net.

Mechanical world, March 20, 1942, p.264. ¼ col.

"The publishers . . . are a well-known firm of makers of welding products . . . As might be expected, therefore, a book issued by them with the title of this one is everything that it purports to be. It covers a great many subjects mainly through [the] medium of actual example—photographs and drawings are freely used. In addition there is a good deal of very useful general information relating to the subject. A useful feature is the inclusion here and there of likely questions with their answers."

Metal industry, March 27, 1942, p.230. ⅛ col.

"A wide collection of hints and tips dealing largely with repairs to specific pieces of plant and these are written in a simple form which should be easily understood by those whose duty it is to act as actual operators. Although 'Sifbronze' rod and flux are the usual recommended materials, the usefulness of the information given . . . is not detracted thereby."

Metallurgia, March 1942, p.152. ⅓ col.

"Well-illustrated . . . Deals in a practical way with the process of the oxy-acetylene welding of ferrous and nonferrous materials, including fusion welding and bronze welding . . . Quite a wide range of welding jobs is discussed from a fly-press to the tipping of carbide tools, and the operations are presented in a way that will be readily understood by the practical welder."

Swann, W. F. G. Physics. 274p. 1941. Wiley, New York, $1.75.

Review of scientific instruments, April 1942, p.175. ¾ col.

"It might be read with profit by all college students including those who plan to specialize in physics, and as well by any intelligent citizen who seeks to know something of the fundamental ideas and methods of the science without burdening himself with a large array of facts. For the teacher who is often depressed by the vast amount of material commonly included in the college text, Dr. Swann's presentation is revealing and refreshing as a demonstration of how much may be omitted without seriously affecting the structural integrity of the treatment . . . An appendix presents in brief summary the simple mathematical relations which have been utilized." *E. F. Barker.*

Science, March 13, 1942, p.277. 1 col.

"This book is one of a series under the general title of THE SCIENCES, which in the words of the general editor, Professor Gerald Wendt, Ph.D., provides 'a brief but significant survey of the fundamental sciences, an elementary but sound foundation for the further study, but above all a key to the understanding of our environment and of the possibilities inherent in science.' The editor's choice of an author of the book on physics was a very happy one. Dr. Swann is eminently qualified for the task . . . A book which is easy to read, full of information and devoid of pedantry. He ventures 'to utter the heresy that the *ideas* are more important than the *facts,*' and in his presentation of the subject he emphasizes the ideas. He gives no irrelevant facts and avoids mathematical formulas and argument." *W. F. Magie.*

Technical Association of the Pulp and Paper Industry. Abstracts of paper-making literature. 150p. The Association, Committee on Abstracts and Bibliography, 122 E. 42nd St., New York.

Pulp and paper magazine of Canada, March 1942, p.314. ⅝ col.

"For several years the Committee on Abstracts and Bibliography . . . has been reviewing the pulp and papermaking literature of the World and has been digesting it for the benefit of the members of the Association. The abstracts . . . have appeared for several years in the PAPER TRADE JOURNAL. However . . . it was . . . decided . . . to discontinue this medium of publication and to . . . issue a separate publication. At first it was considered advisable to omit publication of the older abstracts but since they contain much factual information of value this decision was reversed and the present publication is an accumulation of the abstracts that were not otherwise published . . . In 1942 it is expected that the abstracts will be brought up to date and thereafter will be furnished to the Technical Association members on a quarterly basis . . . The abstracts of articles appearing in American pulp and paper trade publications are treated briefly since these articles are readily available. The foreign journal articles, particularly those printed originally in non-English languages are given more careful treatment . . . It is felt that these records of research and reviews of manufacturing details will serve as a tool to promote technical progress within the industry."

Thewlis, Malford W. Care of the aged (geriatrics). Ed.3, rewritten. 1941. Mosby, St. Louis, $6.

Pennsylvania medical journal, March 1942, p.670. ⅝ col.

"Both timely and important . . . Divided into five sections. General considerations are taken up in Section I; miscellaneous medical problems in Section II; specific infections in Section III; non-infectious diseases in Section IV; pathologic conditions in Section V . . . One is favorably impressed by the effort of the author to present a modern approach to the subject of geriatrics; yet it is very obvious that there is a great dearth of new ideas and research in this field. Therapeutics has gone no farther than it was years ago, and except for the sulfonamide drugs and the vitamins there is nothing new here. The subject of geriatrics itself seems to be stunted from lack of interest and ideas as one looks at it through the eyes of the author . . . Others must take an interest in geriatrics and the literature must grow and accumulate so that in the future a more complete and more scientific text can be written on this newest of all specialities —geriatrics."

Tossutti, Hans. Companion dog training; a practical manual on systematic obedience; dog training in word and picture. 226p. Judd, New York, $2.

Science news letter, April 4, 1942, p.224. ¼ col.

"Should enable the person of average intelligence to train a dog of average intelligence into an obedient, well-mannered companion."

Townsend, William S. B. The aircraft press tool maker. 69p. Pitman, London, 5s. net.

Engineering, March 6, 1942, p.182. ½ col.

"This little book has been written for the benefit of mechanics, fitters and apprentices who wish to obtain a practical knowledge of the construction of the simpler types of aircraft press tools, and the author has succeeded in condensing a large amount of sound practical information, of the kind they are likely to require, in the limited space . . . Both illustrations and descriptive matter are commendably clear."

Machinery (London), March 26, 1942, p.233. ½ col.

"Should be of value to men aiming to become aircraft or general press tool makers." *W. R.*

Van den Broek, J. A. Elastic energy theory. Ed.2, revised. 293p. 1942. Wiley, New York, $4.50.

Aero digest, April 1942, p.228. ½ col.

"The most important change is in the simplification of the notation to bring it into closer agreement with notations used elsewhere . . . Contains much new material, notably on signs, symmetry and anti-symmetry, piston ring design, pipe problems, spiral springs, and columns."

Aeronautical engineering review, April 1942, p.47. ¾ col.

"Not a handbook but has been written primarily for men with college training and several years of practical experience. One of its purposes is to eliminate the confusion of the student in the matter of terminology and in having the theory of elastic energy brought to him piecemeal, with one part coming to him from one author and other parts from other authors. In connection with the elastic energy theory, the author advances two claims: first, that the theory of elastic energy may be developed inductively from the principles of conservation of energy equally as well as it may be developed deductively from Castigliano's partial differential equation; second, that the theory of elastic energy is a general one, that it is applicable to trusses, straight beams, bents, and curved beams alike. Within the assumption of elastic behavior of material and the principle of superposition, the theory of elastic energy is held to be able to accomplish all that any other theory or method will do. In the author's opinion it is not only the most general theory available but it is also the simplest and easiest to grasp."

Professional engineer, March 1942, p.56. 11 l.

"Has been revised but subject matter and its arrangement are substantially maintained . . . The incorporation of the elastic energy theory into one book should prove of invaluable assistance to teachers as well as practicing engineers. An exceptionally well written book."

Van Liere, Edward J. Anoxia; its effect on the body. 269p. 1942. Univ. of Chicago Press, Chicago, $3.

Journal of the aeronautical sciences, aeronautical review edition, March 1942, p.48. ½ col.

"A systematic account on the relation of anoxia

to all known physiological processes of the body. It reviews in detail the effect of anoxia on the blood, heart and circulation, and on the blood pressure, lymph, and respiration. The chemical changes in the body produced by anoxia are pointed out as well as the symptoms and causes of mountain and altitude sickness. Acclimation, effects of anoxia on the alimentary tract, on the secretion of the kidneys, and on the endocrine glands are covered. The author also examines anoxia's relationship to oxidative and nitrogen body metabolism, nutrition, heat regulation, water distribution of the body, and the nervous system."

Science news letter, March 14, 1942, p.176. 9 l.

"A comprehensive review of the literature on a subject that has become of increasing interest to the layman and the general practicing physician as well as to the specialists studying oxygen want, a problem encountered not only in high altitude flying and mountaineering but also in diseases of the heart, circulation, blood and lungs."

Watson, F. R. Acoustics of buildings. Ed.3. 171p. 1941. Wiley, New York. $3.

Journal of the Franklin Institute, March 1942, p.291. ½ p.

"One feature of the book is its thoroughness . . . Divided into three parts: general phenomena of sound that apply to buildings, acoustics of rooms, and sound insulation. And the subheadings of each of these parts reflect an ordered presentation and logical progression . . . Another feature . . . is clarity. Only simple language is used. The use of technical terms is restricted to sentences of simple construction, the meaning of which is quickly grasped with a minimum possibility of misunderstanding, yet the treatment is not jerky or abrupt. The theory as it is presented is readily applicable to practice. It is authoritative and represents the latest aspects of the subject. As a text and reference work of unusual qualities, the book can be recommended." *R. H. Oppermann.*

Welcher, Frank. Chemical solutions. 404p. c1942. Van Nostrand, New York, $4.75.

Chemical and engineering news, March 25, 1942, p.425. ⅜ col.

"Composed of concise accounts of the use, method of preparation, and procedure by which some 1,700 solutions, reagents, indicators, culture media, stains, etc., are applied in laboratory practice . . . References are included to some 35 books and 98 scientific periodicals from which the compiled information was gathered . . . The typography, printing, paper, and binding are of a high standard of excellence and the book will undoubtedly serve a useful purpose in conveniently supplying needful information to large numbers of those engaged in experimental investigations." *Atherton Seidell.*

Drug and cosmetic industry, March 1942, p.302. ⅜ col.

"The purpose . . . is simply to collect in one place for convenient reference the methods for preparing those solutions most frequently required by the chemist."

Rayon textile monthly, March 1942, p.84. ⅓ col.

"A book of formulas for the more commonly used solutions such as indicators, standard acids and bases, solutions of salts, special test reagents, stains, fixatives, culture media. But this is not all. In order to increase its usefulness, the book states the uses of each solution; the procedure for use of each in all cases where this is practicable; a list of substances, which interfere in making special tests; also the sensitiveness of test reagents and general remarks regarding the keeping qualities, methods of storage, etc., of various reagents . . . Solutions are listed in alphabetical order . . . There is also an index of reagents . . . Seems largely intended for the chemistry student, no claim is made for completeness."

Textile colorist, March 1942, p.154. ⅓ col.

"The material has been carefully selected from the literature covering all phases of applied laboratory work in chemistry and is therefore a useful addition to any laboratory shelf. Of especial interest to chemists in the textile industry are special test reagents for textile fabrics and other materials used in the textile industry."

Wenstrom, William Holmes. Weather and the ocean of air. 484p. 1942. Houghton, Boston, $4.50.

Aero digest, April 1942, p.227. 1 col. including an illustration.

"Based upon much actual experience, and is an authoritative picture of the air in which we live, and the means and instruments through which we explore it."

Natural history, April 1942, p.239. ⅜ col.

"An authoritative and entirely readable book on the science of weather . . . Clouds, winds, rain, snow, cold fronts,—all of the principal phenomena, and expressions of the phenomena, of the weather are clearly discussed, and in considerable detail. The treatment is based upon the essentially new methods developed by the introduction of the 'air-mass-and-front analysis' theories, and as such is entirely up-to-date and modern . . . The impressive list of acknowledgments to specialists who have read and criticized the various chapters, leaves no room for doubt as to the authenticity of the material presented. Particularly valuable are the data on home weather installations, observations, and forecasting; on farmer's weather, mariner's weather, and aviator's weather . . . Interesting and very well-written, this book has all of the information to be expected from a textbook on the subject, without lapsing into the less interesting 'textbook style' of writing. It is enthusiastically recommended." *H. E. Vokes.*

Nature magazine, May 1942, p.231, 274. 3 col. including other reviews.

"This book, aiming to 'interpret science,' is an interesting history of weather studies, a description of the various aspects of the air ocean, and a discussion of the explanations that men have formulated. It is also a practical guide for amateur weather men and others of us who are going to rely more and more on our own observations if we hope to have forecasts. At the same time it is in many places most pleasantly written." *Howard Zahniser.*

Whitman & Barnes. Drill and reamer facts. 32p. The Author, 2108 W. Fort St., Detroit, gratis.

Modern machine shop, April 1942, p.343. ½ col.

"The 'Drill Facts' section . . . contains illustrated and descriptive information on the design and construction of twist drills, correct drill pointing, as well as general suggestions in the proper use and care of drills . . . The 'Reamer Facts' section contains a short treatise on the design, construction, use, and care of reamers, cause of breakage, excessive wear, and so on."

Wilder, R. L., & **Ayres**, W. L., ed. Lectures in topology; the University of Michigan conference of 1940. 316p. 1941. Univ. of Michigan Press, Ann Arbor, Mich., $3.

Bulletin of the American Mathematical Society, March 1942, p.203. ½ p.

"Practically every phase of modern topology is touched upon in this collection. Many of the papers are of a discursive nature, with most of the proofs omitted, and so the total amount of ground covered is quite extensive. We heartily recommend this book to any worker in topology as an excellent source of information on the present status of this subject." *R. J. Walker.*

Wirtschafter, Zolton T., & **Korenberg**, Morton. Diabetes mellitus. 186p. 1942. Williams & Wilkins Co., Baltimore, $2.50.

Journal of the American Dietetic Association, April 1942, p.248. ½ col.

"This is an ambitious, if not a revolutionary book on diabetes mellitus. It is implied that great differences of opinion have complicated the

treatment of this disease (or condition, if you will), but if so, it is an exaggeration to say that 'the numerous theories and diverse methods of treatment have left both the student and the practitioner hopelessly bewildered.' These, to put it mildly, are strong words in this day of widespread bewilderment. Certainly, the treatment of diabetes mellitus seems far less in a state of flux than certain other therapies. In any event the authors have presented a passable review of past and existing methods and theories."

Wiseman, Mark. The anatomy of advertising. v.1: Campaign planning. 226p. Harper, New York, $3.

Editor & publisher, March 21, 1942, p.38. ⅝ col.

"A book that requires study. With surgical precision 'The Anatomy of Advertising' develops its own particular methodology of campaign planning from its conception to its potential audience and sales. Old-Timers in the profession may scoff perhaps, at the precise and exacting analysis, but the newer and more 'scientific' advertising agency will welcome this new information . . . The book is sound and useful. It will save the earnest advertising man time and his client some money . . . There are numerous charts, graphs and illustrations that are quite useful."

Young, W. W. The foundry. Revised and enlarged edition. 99p. 1941. Stanford Bookstore, Stanford Univ., Calif., $1.80 unbound.

Foundry, April 1942, p.196. ½ col.

"Compiled especially for the Stanford engineering students taking foundry practice. The scope . . . has been limited to the time available for instruction in the course. Purpose . . . is to familiarize the student with the different metals suitable for casting, to teach him fundamental principles of the design and construction of patterns and castings, and to impart as much general information on foundry practice as possible in the allotted space . . . For the purpose for which it was compiled the manual is a highly commendable piece of work and might be studied with profit by many practical foundrymen. The chapter on electric furnace operation should prove exceptionally acceptable to superintendents, foremen and others in plants where electric furnaces have been installed recently."

Younger, John, & **Geschelin,** Joseph. Work routing, scheduling and dispatching in production. Revised edition of "Work Routing in Production." 160p. 1942. Ronald, New York, $3.25.

Aero digest, March 1942, p.357. ½ col.

"Written for two groups of readers: executives and others concerned with daily production problems, and students of industrial management and engineering in college classrooms. It is a study of the underlying principle or law back of each step in the control of the work-routing program, that is, the satisfactory planning of the work to be accomplished, the determination of the path the plan must follow, and the setting in motion of the plan along the path. The most economical machine tools to use, their sequence and proper application, and the most economical lot sizes in which the product may be routed are all investigated. The experience of representative manufacturing concerns is freely drawn upon, through examples, cases and allusions to their practices."

American business, March 1942, p.56. ¼ col.

"Its simple and concise form makes it suitable for use in training courses in plants as well as in [the] classroom. Now, when speed-up of production is a matter of life and death to us, a book such as this placed in the hands of the uninitiated who are suddenly faced with problems of work routing may save us from many a bottleneck. While most of the book pertains to large plant operation, the small shop owner is not forgotten and the authors suggest many ways the job shop can cut costs and save time."

American machinist, March 19, 1942, p.265. ⅝ col.

"Few people outside of industry realize the part played by planning in efficient production . . . It is safe to say that percentagewise, work routing, scheduling and dispatching have greater influence on plant output than any other factors . . . The authors present clearly the individual considerations that underlie these functions. They describe, for instance, such essential details as the analysis of operations, the use of fixtures, economic lot sizes, standardization, the use of charts, material handling and other highly essential considerations needed to make work flow smoothly through the shop . . . Will serve . . . as a guide for the many young men that have been called by industry to help solve one of its most pressing problems."

Journal of the aeronautical sciences, aeronautical review edition, March 1942, p.49. ⅝ col.

"Among the subjects treated are the analysis of operations, proper quantities to put through economically, centralized planning, quality control, the problems of tools, dies and fixtures, material handling, and the laws of movement and rhythm in industry. Cost accounting, standardization, company policies, personnel and other problems are covered, explanations being given of the use of charts and forms. Problems at the end of each chapter serve to summarize the information covered and give the reader an opportunity to test the degree of his absorption of the subject matter."

Tool engineer, April 1942, p.114. 12 l.

JOHN WILEY & SONS, Inc.
Scientific and Technical Books
440 Fourth Avenue New York City

TECHNICAL AND SCIENTIFIC BOOK SERVICE
For complete and up-to-date list (3,000 titles), consult Books Section of CHEMICAL ENGINEERING CATALOG. For American Chemical Society Monographs and other REINHOLD books, send for our New 1940 Catalog.
Reinhold Publishing Corporation
330 WEST 42nd ST. NEW YORK, N. Y.

PITMAN PUBLISHING CORPORATION
Scientific & Technical Publications
2 West 45th Street, New York City